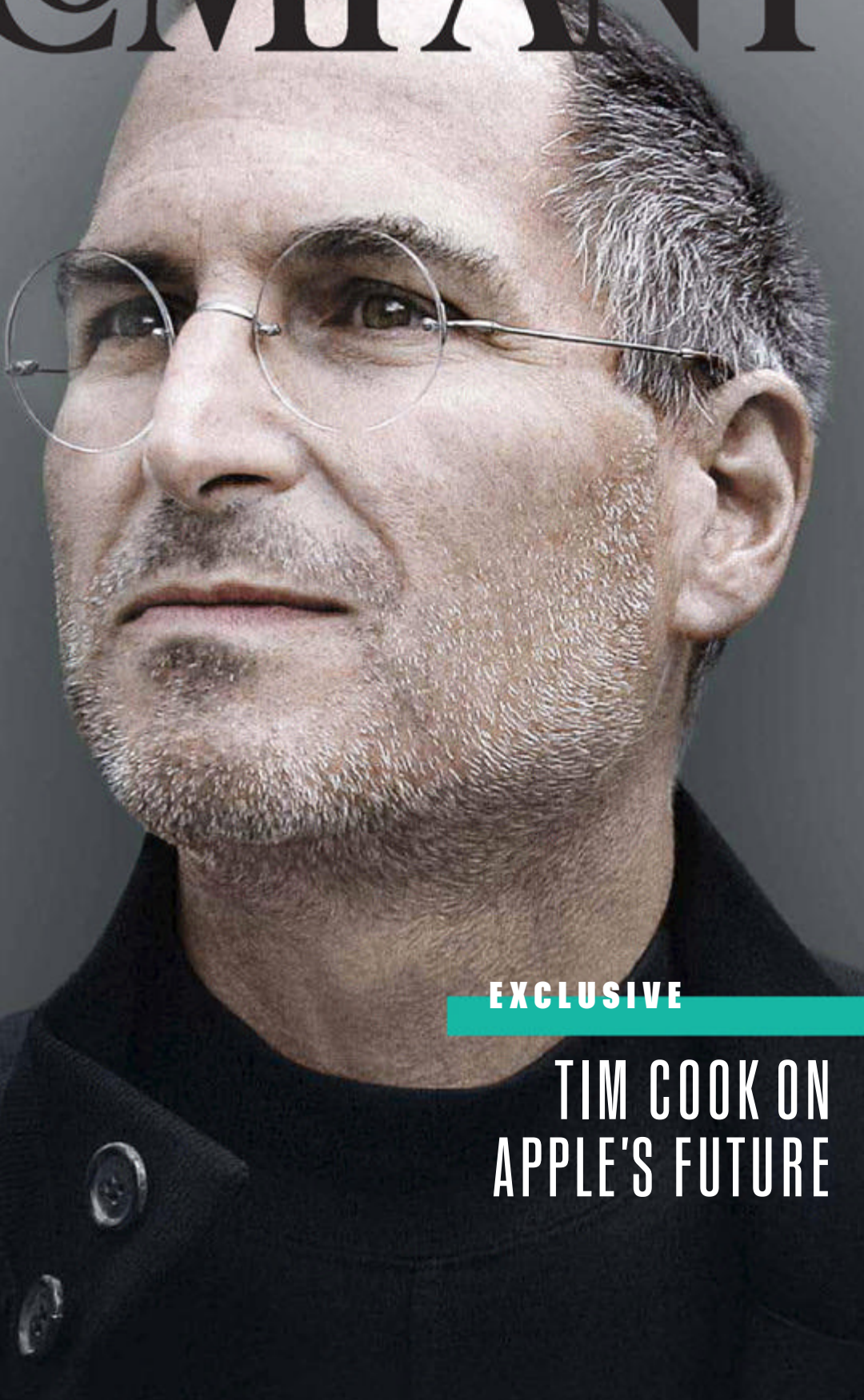


20 BEST BUSINESS COMEBACKS | WHY IT'S DROPBOX VS. THE WORLD | GAP'S PLAN TO WIN YOUR LOVE

# FAST COMPANY

KIND.  
PATIENT.  
HUMAN.  
THE  
STEVE  
YOU  
DIDN'T  
KNOW.



EXCLUSIVE

TIM COOK ON  
APPLE'S FUTURE





# POLO

RALPH LAUREN

*Introducing the new*  
***KNIT OXFORD***

*Our signature oxford shirt  
reimagined in stretch cotton mesh*



[RALPHLAUREN.COM](http://RALPHLAUREN.COM)









# WELCOME TO OUR WORLD

At the heart of the most extreme missions are the exceptional pilots who experience daring feats on a daily basis and are prepared to entrust their security only to the most high-performing instruments. At the heart of the most extreme missions is the Breitling Avenger. A concentrated blend of power, precision and functionality, Avenger models boast an ultra-sturdy construction and water resistance ranging from 1,000 to 10,000 feet. These authentic instruments for professionals are equipped with selfwinding movements chronometer-certified by the COSC – the highest official benchmark in terms of reliability and precision. Welcome to the sphere of extremes. Welcome to the Breitling world.

## BREITLING BOUTIQUE

5 EAST 57TH STREET • NEW YORK

AVENTURA MALL • MIAMI

THE FORUM SHOPS AT CAESARS • LAS VEGAS

THE MALL AT MILLENIA • ORLANDO





SUPER AVENGER II



INSTRUMENTS FOR PROFESSIONALS™









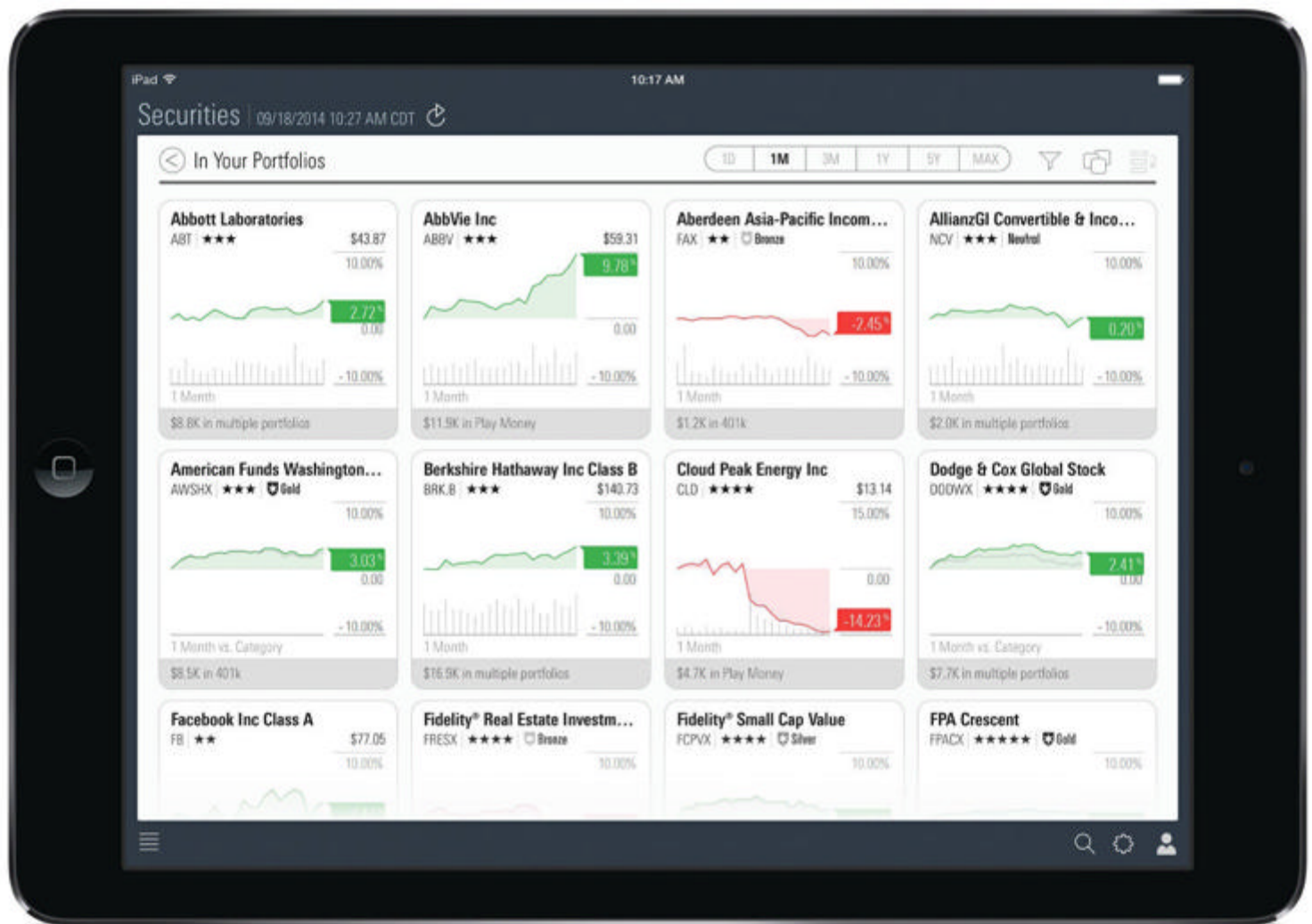
## WHAT YOU NEED BEFORE YOU NEED IT.

From the moment you step on board, our cabin attendants anticipate your every need. This dedication to detail stems from the Japanese philosophy of Omotenashi. It's what inspires the world-class service that makes ANA the best choice for flying to Japan and Asia.

And it's all By Design

[www.fly-ana.com](http://www.fly-ana.com)





**Research**  
new investments



**Evaluate**  
your portfolio



**Monitor**  
the markets

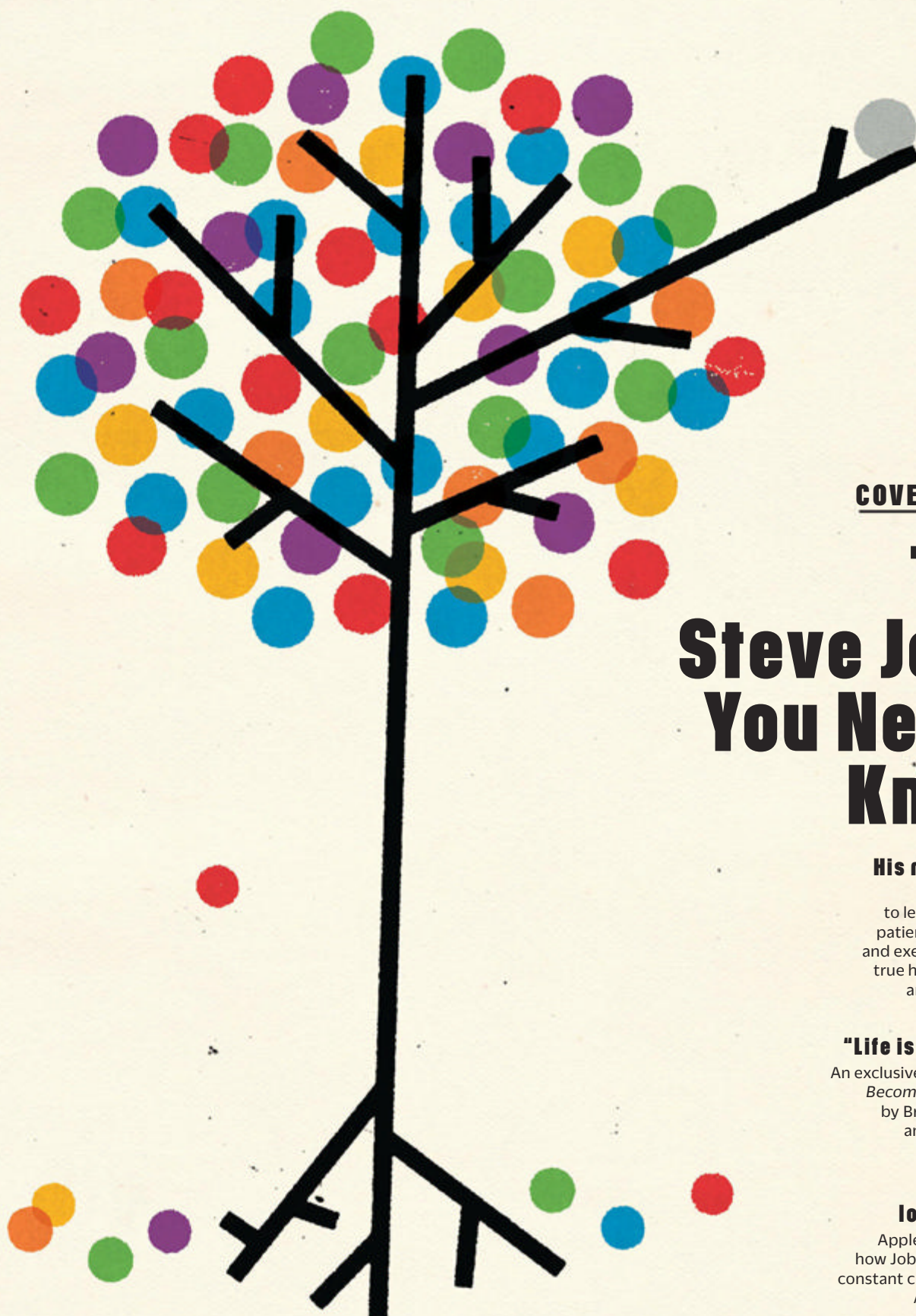
## Take a good look at your investments with Morningstar® for iPad®.

Morningstar® for iPad® gives you an instant view of how the investments important to you are performing with every market shift. In one glance, you can compare trends in current and past returns across the securities in your portfolios and watchlists. Easy-to-spot ratings put leaders and laggards into context to help you make informed investment decisions.

**MORNINGSTAR®**







**COVER STORY**

# The Steve Jobs You Never Knew

**His real legacy**

Jobs's effort to learn teamwork, patience, synthesis, and execution are the true hallmarks of his amazing career.

**Page 70**

**"Life is too short"**

An exclusive excerpt from *Becoming Steve Jobs* by Brent Schlender and Rick Tetzeli.

**Page 78**

**Tim Cook looks ahead**

Apple's CEO reveals how Jobs's embrace of constant change informs Apple's future.

**Page 84**

Illustration by  
Heads of State









J.CREW



**Trend spotting**

Banana Republic creative director Marissa Webb was hired to inject a sense of style into Gap Inc. (page 90)



**FEATURES**

**GapQuest**

**90** Art Peck is Gap Inc.'s new CEO. To secure the company's reputation, and market share, he knows he must reinvent retail.

BY DANIELLE SACKS

**Dropbox vs. the world**

**96** Dropbox's 32-year-old CEO, Drew Houston, thinks he can thwart Microsoft and Google. Inside the new tech war to control all the stuff you store in the cloud.

BY J.J. MCCORVEY

**DEPARTMENTS**

**16 FROM THE EDITOR**

**Most Creative People**

**20** How Charles Rivkin went from Wildbrain Media to the U.S. State Department.

**Most Innovative Companies**

**22** The latest from Uber, Nasty Gal, and more.

**The Recommender**

**24** Essential oils, four bands, a recipe for peas with country ham, and everything else you need to try right now.

**One More Thing**

**108** With the right mix of data, technology, competition, and sensible betting, we can make American cities more livable.

BY BARATUNDE THURSTON





IBM Watson:

## Watson is ready to go to work with you.

There's a new way to compute. IBM Watson™ has been trained by experts in industries ranging from retail to travel to healthcare so it can reveal hidden patterns and make recommendations. Accelerate innovation at [ibm.com/madewithibm](http://ibm.com/madewithibm)

Smarter industries are made with IBM.



## NEXT

### The 20 biggest business comebacks

29 What are the great revivals of the last two decades?

### Creativity à la Björk

38 The Icelandic visionary talks technology and sound ahead of her MoMA retrospective.

### Stealth doctors

42 Microscopic robots that navigate your veins to deliver medication.

### How bizarre

44 Fab cofounder Bradford Shellhammer starts anew.

### Troubleshooting at Intel

48 Carolyn Duran sets a humanitarian precedent for the electronics industry.

### Hotel 3.0

50 The startup Reaction Housing has a plan—portable pods—to ease disaster relief. First, it has to get Hyatt on board.

### Street smarts

56 Cities around the world are dropping the boundaries between pedestrians and traffic. Why?

### Tailors for all!

60 What a custom-made dress shirt says about the future of shopping.

BY OM MALIK

### Healing from PBS

62 The author of cancer history *The Emperor of All Maladies* brings his message of hope to a new documentary.

### A study in contrast

66 The Katedra desk is a piece for the ages.

### Crops on every corner

68 Lighting giant Philips is among those using LEDs to fuel the vertical farms of the future.

### Take two

"I don't want to be the guy who is doing Fab again," says Shellhammer. (page 44)



A white Lincoln MKC is shown from a side profile, driving on a road. The car is positioned in the lower half of the frame. Above the car, a large concrete bridge structure curves over the road. The background features a green landscape and a cloudy sky. The word "FORMIDABLE" is overlaid in large, white, sans-serif capital letters across the middle of the image, partially obscuring the car and the bridge.

# FORMIDABLE

THE FIRST-EVER LINCOLN MKC. LIVE IN YOUR MOMENT.

Be able to meet challenges head-on, with the turbocharged EcoBoost® engine and active noise control technology in the 2015 MKC. Experience the MKC at [Lincoln.com/MKC](http://Lincoln.com/MKC).



THE LINCOLN MOTOR COMPANY



## DIGITAL

What's happening in the FC network



**Transparency reigns**  
Quirky aims to operate as openly as its glass-walled workshop.

FASTCOMPANY.COM

# You are where you work

OUR LATEST VIDEO SERIES SHOWS HOW IMPORTANT OFFICE DESIGN IS TO IDENTITY.

**FC** Quirky, the New York City-based startup, is a symbol of how innovation has changed the way things get made: It crowdsources ideas and cranks out submissions into real products, bypassing the bureaucracy and manufacturing costs typically involved with the process of invention. But Quirky's office itself is a symbol of the maker movement: It's located in a 124-year-old factory (go figure) and sports a next-gen assembly line of 3-D printers and laser cutters for fashioning prototypes. "We wanted to inspire great design in an open and collaborative atmosphere," says Rochelle DiRe, head of people and culture. Quirky offered FastCo Studios a tour of its digs for *Office Throwdown*, our new bracket-style video series that peeks inside the unique spaces of big names in business—including Yelp and Tumblr—and then lets readers vote for the coolest offices of them all. Voting is open through March, and if you miss the cutoff, you can check out the footage for ideas on upgrading your own office.

### INDUSTRY UPDATES

## Another day, another design move

Keeping up with the ever-roving intersection of business and design takes a keen ear to the ground. Let *Design Moves*, a new Co.Design article series, be that, er, ear. Find out, for example, why Facebook recently raided the design firm behind the blogging platform Medium, and who's taking over at the prestigious Frank Gehry School of Architecture.



### ONLINE

FASTCOMPANY.COM

## What Facebook can learn from IBM about diversity

**FC** Facebook, like its Silicon Valley cohort, has acknowledged its lack of diversity. Ime Archibong, Facebook's director of product partnerships, points to his former employer IBM for ways Facebook can improve, citing two executives who inspired him, Rodney Adkins and Mark Dean. "IBM has 400,000 employees; there were two African-Americans at the top," he says.

FASTCOEXIST.COM

## A bionic eye brings sight to the blind

**H** The future is here, and maybe cyborgs, too: People blinded by the degenerative disease retinitis pigmentosa can now purchase the Argus II, a bionic eye that can be safely, surgically implanted and is paired with video camera-equipped glasses to help patients distinguish the objects around them.

FASTCODESIGN.COM

## Why Boeing built a building inside a building

**D** The engineers at Boeing had an unfortunate commute: their Renton, Washington, HQ were a 20-minute trek from the factory housing the aircraft they worked on. So the company constructed a two-story office inside the 1.4-million-square-foot warehouse. Now, "employees are connected to the product they build," says design director Chad Yoshinobu.

FASTCOCREATE.COM

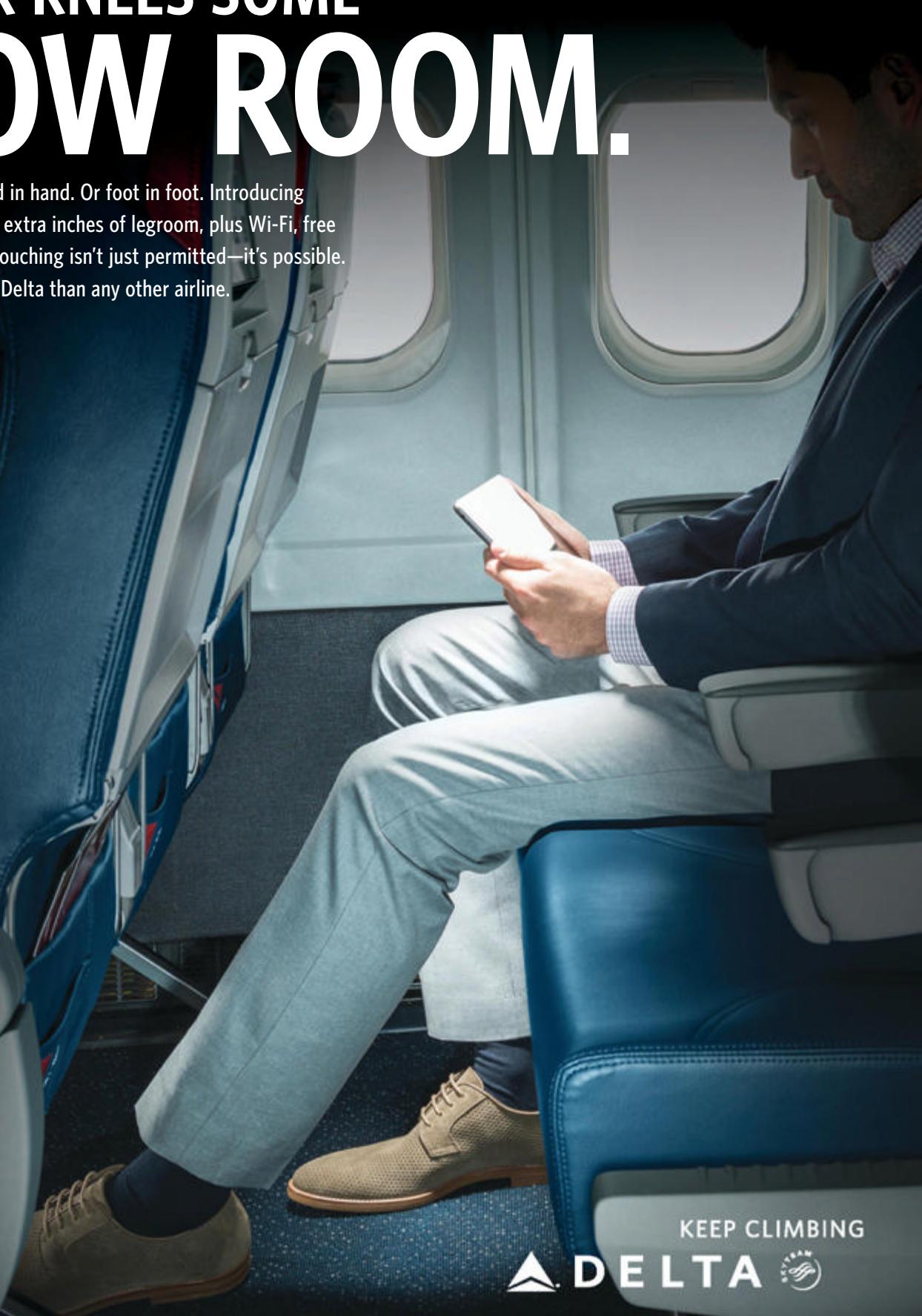
## How the American Sniper writer went from failure to the Oscars

**J** Jason Hall had only landed small roles on shows like *CSI: Miami*. But Hall found inspiration in the scripts. "I figured I could write a script this bad and it'd [at least] be my own," he jokes. Find out how writing material for others, including this year's Oscar-nominated *American Sniper*, helped him find success.



# GIVE YOUR KNEES SOME ELBOW ROOM.

Now, flying and comfort go hand in hand. Or foot in foot. Introducing Delta Comfort+,™ with up to four extra inches of legroom, plus Wi-Fi, free premium drinks, and more. So slouching isn't just permitted—it's possible. No wonder more people choose Delta than any other airline.



KEEP CLIMBING  
 **DELTA** 

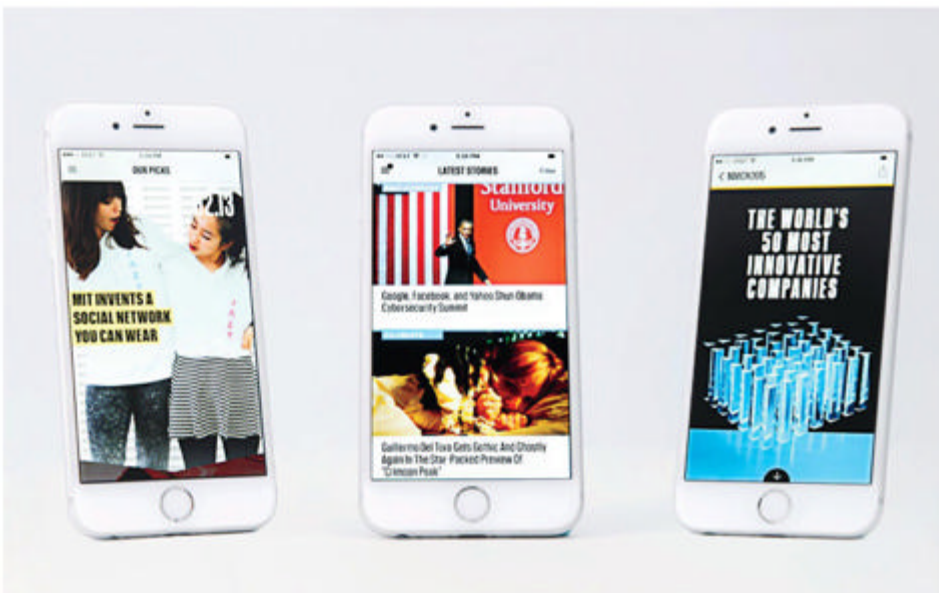
Delta Comfort+ seating is offered on Delta's two-cabin aircraft, subject to availability. Features differ according to flight type/destination/aircraft. Domestic flights offer up to 3 more inches of legroom and international flights offer up to 4 more inches than the standard Main Cabin seat. Wi-Fi not available on all flights and subject to Gogo terms of use. Must be 21 and over for alcoholic beverages; please drink responsibly; beverages offered on flights > 250 miles. Terms and conditions do apply. To review full terms and conditions, please visit [delta.com/comfortplus](http://delta.com/comfortplus)





**FC mobile 2.0**

Our new mobile app turns *Fast Company* into a multidimensional experience.



# Something new

**WHEN I FIRST** saw Snapchat's new "Discover" feature, which includes video content from the likes of CNN and Yahoo, I didn't get it. What did those videos have to do with the disappearing photos on which Snapchat was born? It reminded me of my early encounters with Twitter: How was a tweet different from a status update on Facebook?

New things can seem foreign at first. But that doesn't mean they're not designed to meet a need. I've watched my teenage son quickly warm to Snap-

chat's videos, and I have become fully addicted to Twitter.

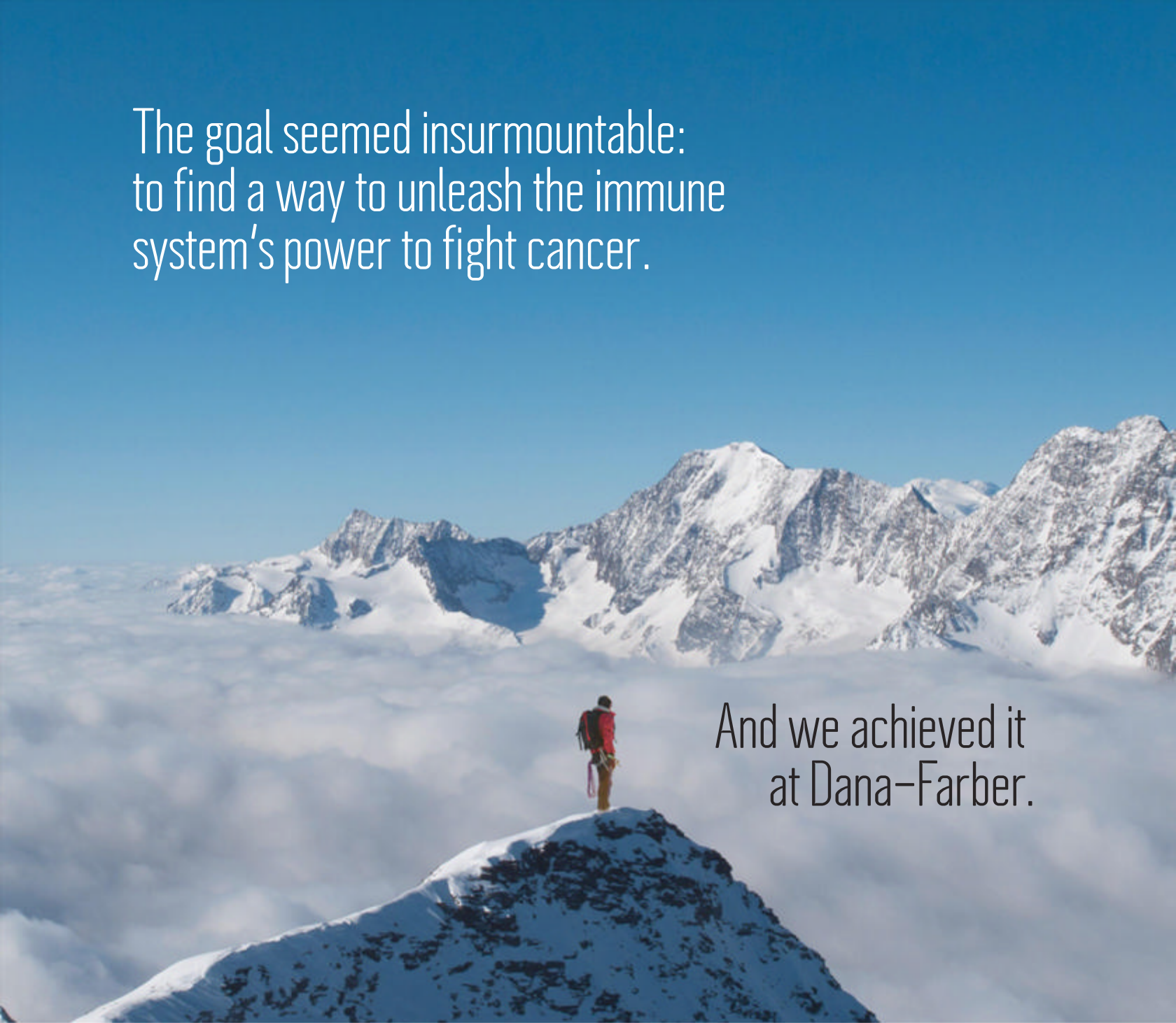
In that spirit, *Fast Company* released a new app this month for iPhone and iPad users that presents our content in a whole new way. The app combines real-time news feeds from our web properties—[fastcompany.com](http://fastcompany.com), [fastcocrete.com](http://fastcocrete.com), [fastcodesign.com](http://fastcodesign.com), and [fastcoexist.com](http://fastcoexist.com)—with print magazine content, plus a "Top Picks" channel, with stories selected by our editors. Created in partnership with Adobe, the app sits apart from traditional magazine offerings in the App Store (i.e., outside of Newsstand), so the content is a click or two closer for users than our existing (and still ongoing) iPad app for the monthly magazine.

I'm often asked for predictions about the future of mobile. The only certainty: The future will be different. We believe our new app provides a rich experience, and in beta testing (to a universe of 700 volunteers) feedback has been strongly positive. But we know this is just the beginning. The relationship between apps and mobile sites is in flux. We need to continually iterate on our content, in both form and substance, to remain relevant and useful to our readers. We need to provide better tools for those on Android and other non-iOS devices. Even our new app needs additional features that aren't yet feasible on Adobe's platform.

What we do know is that no tool or device will make up for subpar content. We aim to deliver articles you can't get elsewhere, such as this issue's features on Gap (page 90) and Dropbox (page 96)—which provide exclusive access to both the CEOs and their strategies—and our cover package on Steve Jobs (page 70), which challenges the prevailing narrative on Apple's breakthrough success. Anchored by an excerpt from *Becoming Steve Jobs*, a terrific new book by executive editor Rick Tetzeli and contributing writer Brent Schlender, the package explains how step-by-step development has been critical to Apple. As design chief Jony Ive puts it, "There are a number of things that you have achieved at the end of a project. There's the object, the actual product itself. And then there's all that you learned [in creating that product]. What you learned is as tangible as the product but much more valuable, because that's your future."

We certainly learned a ton creating our new app. Please try it out. We'd like to get your input as we continue evolving our mobile future. Looking ahead is what makes working in this business so dynamic—and hopefully what makes reading about the companies and people we cover so engaging.

**Robert Safian**  
editor@fastcompany.com



The goal seemed insurmountable:  
to find a way to unleash the immune  
system's power to fight cancer.

And we achieved it  
at Dana-Farber.

To many physician-researchers and scientists, finding a way to get the body's immune system to attack cancer cells is a momentous achievement. And Dana-Farber researchers helped make it happen. We found that some cancer cells elude the body's immune defenses by cloaking themselves in the proteins PD-L1 and PD-L2. This discovery led to the development of several immunotherapies that are already demonstrating promising results and better quality of life for some people with deadly cancers. In fact, the new therapies have improved outcomes for many patients with advanced metastatic melanoma, kidney cancer, Hodgkin lymphoma, bladder cancer, stage IV lung cancer, and more. And the sky is the limit.

Videos, whitepapers and more at [DiscoverCareBelieve.org/PD-1](http://DiscoverCareBelieve.org/PD-1).



HARVARD MEDICAL SCHOOL  
TEACHING HOSPITAL



DANA-FARBER  
CANCER INSTITUTE

Discover. Care. Believe.



# FAST COMPANY

## Publisher Christine Osekoski

**Associate Publisher, Global Marketing** Erica Boeke

### Sales

**Integrated Advertising Director**  
Erik Yates 212-389-5530

**Luxury Account Director**  
Eileen Brady 212-389-5447

**Technology and Consumer Electronics Director**  
Judi Christiano 212-389-5477

**Account Director**  
Alex Dardac 212-389-5448

**Account Manager**  
David Coker 212-389-5458

**Senior Digital Account Manager**  
Young-John Tung

**Digital Account Manager**  
Cat Stern

Atlanta:  
**Green Leaves Media Inc.**  
Wheeler Morrison 404-600-8293

Chicago:  
**Account Director**  
Lance M. Adeszko 312-888-9289

Detroit:  
**Account Director**  
Ann Pantalone 248-205-3905

Los Angeles:  
**Access Media**  
Jim Horan 310-341-2345

Pacific Northwest and Southwest:  
**Senior Account Director**  
Kristin Ingram 415-509-1910

**Sales Associates**  
Deanna Gialanella, Marla Salamon

### Integrated Marketing

**Executive Director, Integrated Marketing** Maggie Weinberg

**Executive Director, Experiential and Partnerships** Andrew Kilbourn

**Director, Brand Strategy and Insights**  
Monika Bondy

**Senior Managers, Integrated Marketing**  
Rachel Meltzer, Amanda Meyer

**Senior Digital Project Manager**  
Michelle Tarnok

**Integrated Marketing Manager**  
Kelly Martin

**Digital Project Manager**  
Sarah Wormser

**Integrated Marketing Coordinator**  
Vashti Viray

**Senior Design Consultant**  
Dana Leonetti

**Design Consultant**  
Garrett McGale

**Integrated Marketing Intern**  
Stephanie Kempadoo

## Editor Robert Safian

**Executive Editors**  
Noah Robischon, Rick Tetzl

**Managing Editor**  
Lori Hoffman  
**Deputy Editor**  
David Lidsky  
**Editorial Director**  
Jill Bernstein

**Editor, Fast Company Digital**  
Anjali Mullany  
**Editor, FastCoCreate.com**  
Teresa Iezzi  
**Editor, FastCoDesign.com**  
Suzanne LaBarre  
**Editor, FastCoExist.com**  
Morgan Clendaniel

**Editors-at-Large** Jeff Chu, Jon Gertner

**Senior Editors** Rob Brunner, Kathleen Davis, Reyhan Harmanci, Harry McCracken, Mac Montandon, Chuck Salter, Erin Schulte, Linda Tischler

**Senior Writers** Austin Carr, Danielle Sacks, Mark Wilson

**Staff Editors** Joe Berkowitz, Adrian Covert

**Staff Writers** Jeff Beer, John Brownlee, Chris Gayomali, Rebecca Greenfield, Evie Nagy, Adele Peters

**Senior Associate Editor** J.J. McCorvey

**Associate Editors** Jillian Goodman, Sarah Kessler, Ariel Schwartz, John Paul Titlow

**Assistant Editors** Carey Dunne, Shaunacy Ferro, KC Ifeanyi, Sarah Lawson, Jessica Leber, Cayleigh Parrish, Rose Pastore

**Editorial Assistants** Rachel Gillett, Nikita Richardson, Lauren Schwartzberg

**Director, Editorial and New Business Enterprises** Bill Shapiro

**Creative Director**  
Florian Bachleda  
**Design Director**  
Ted Keller  
**Photography Director**  
Sarah Filippi

**Chief Technology Officer**  
Aaron Miller  
**Head of Video and Television**  
Scott Mebus

**Art Director** Alice Alves  
**Photo Editor** Annie Chia  
**Associate Art Director**  
Julia Knetzer  
**Associate Photo Editors**  
Joel Arbaje, Celine Grouard

**Production Director**

Carly Migliori  
**Senior Copy Editor**  
Charissa Jones  
**Production Associate**  
Miriam Taylor

**Senior Developers**  
Harry Guillermo, Sergey Khaladzinski, Nathaniel Laws  
**Developers**  
Tyler A. Adams, Joshua Lieberman  
**Site Quality Engineer**  
Yongzhi Huang  
**UI Developer** Sylvia Carolina  
**Director of Web Projects**  
Claudia Rojas

**Technical Director** Bryan Neilon  
**Video Producer** Valerie Lapinski

**Senior Events Editor**  
Kim Last  
**Associate Events Editor**  
Alexa Jaccarino

### Contributors

**Writers** E.B. Boyd, Max Chafkin, Lydia Dishman, Charles Fishman, Nicole LaPorte, Greg Lindsay, Nancy Lublin, Om Malik, Ainsley O'Connell, Alex Pasternak, Andrew Rice, Brent Schlender, Elizabeth Segran, Baratunde Thurston, Neal Ungerleider, David Zax

**Video** Kim Mas, Sandra Pasquariello, Shalini Sharma

**Copy Editors** Molly Bloom, David Penick, Adam Stiles

**Photo Editors** Daniel Salo, Maja Saphir **Photo Assistant** Roslyn Julia Johns

**Designer** Dan Whiteley **Social Media Producers** Robbie Jones, Pavithra Mohan

**Web Development Intern** Zacqary Xeper **Web Producer** Justin Charles

**Artists** Danilo Agutoli, Kyle Bean, Greg Broom, Jeff Brown, João Canziani, Samantha Casolari, Álvaro Domínguez, Pari Dukovic, Owen Gildersleeve, Melissa Golden, Eddie Guy, Erik Madigan Heck, Jeff Lyngaard, Dan Matutina, Max-o-matic, Ollanski, Ryan Pfluger, Sawdust, Daniel Shea

### How to Reach Fast Company

Events:  
For the latest updates and news on Fast Company events, sign up for our newsletter [fastcompany.com/events/subscribe](http://fastcompany.com/events/subscribe)

Subscriptions:  
Visit [fastcompany.com/customercare](http://fastcompany.com/customercare)  
Email [tadams@fastcompany.com](mailto:tadams@fastcompany.com)  
Call 800-542-6029 (in U.S.A. and Canada) or 515-248-7693 (foreign)  
Write to **Fast Company**, Subscription Services, PO Box 2128, Harlan, IA 51593-0317  
For bulk subscriptions, email [tadams@fastcompany.com](mailto:tadams@fastcompany.com)

Editorial Offices:  
**Fast Company**, 7 World Trade Center, New York, NY 10007-2195  
**Editorial Department** 212-389-5444  
**Letters to the Editor** [loop@fastcompany.com](mailto:loop@fastcompany.com)  
**Permissions** [permissions@fastcompany.com](mailto:permissions@fastcompany.com)  
**Back Issues** 800-542-6029  
**Reprints** [fastcompanyreprints.com](http://fastcompanyreprints.com)  
**Advertising Inquiries** 212-389-5453  
**Media Inquiries** [media@fastcompany.com](mailto:media@fastcompany.com)

Our subscriber list is occasionally made available to carefully selected firms whose products or services may be of interest to you. If you prefer not to receive information from these firms, please let us know at [privacy@fastcompany.com](mailto:privacy@fastcompany.com), or send your request along with your mailing label to Fast Company, PO Box 2128, Harlan, IA 51593-0317. Printed in the U.S.A.

## Chairman Joe Mansueto Mansueto Ventures

**Chief Financial Officer**  
Mark Rosenberg

### Production

**Group Production Director**  
Kathleen O'Leary

**Ad Operations Manager**  
Sung Woon Kil

**Production Manager** Jane Hazel

**Production Finance Manager**  
Robert Bronzo

**Associate Production Manager**  
Dave Powell

### Digital Media and Ad Operations

**Group Digital Media and Operations Director**  
Steven Suthiana

**Associate Director of Digital Business Operations**  
Jonelle Marino Lasala

**Associate Manager of Digital Business Operations** Selin Erdinc

**Senior Analyst of Digital Analytics and Yield Management**  
James Van Sweringen

**Senior Digital Revenue Operations Manager** David Vasquez

**Senior Digital Revenue Operations Coordinator** Rian Rooney

**Digital Revenue Operations Coordinator** Gabriel Coffey

**Digital Revenue Operations Associates**  
Meaghan Curran, Nina Rubio

**Digital Ad Tech Coordinator**  
David Rosenbaum

**Consultant** Christian Segarra

### Consumer Marketing

**Consumer Marketing Director**  
Anne Marie O'Keefe

**Circulation Operations Director**  
Doug Smith

**Senior Consumer Marketing Managers**

Tyler Adams, Kathryn Kmiotek

**Consumer Marketing Manager**  
Rebecca Sullivan

### Administration

**Director of Human Resources**  
Miles M. Merwin

**Controller** Eve Pai

**Facilities Director** Randy Davis

**Accounting Manager** Jacqueline Nurse

**Staff Accountant** Sharita Neversen

**Accounts Payable Manager**  
Marilou Ordillas

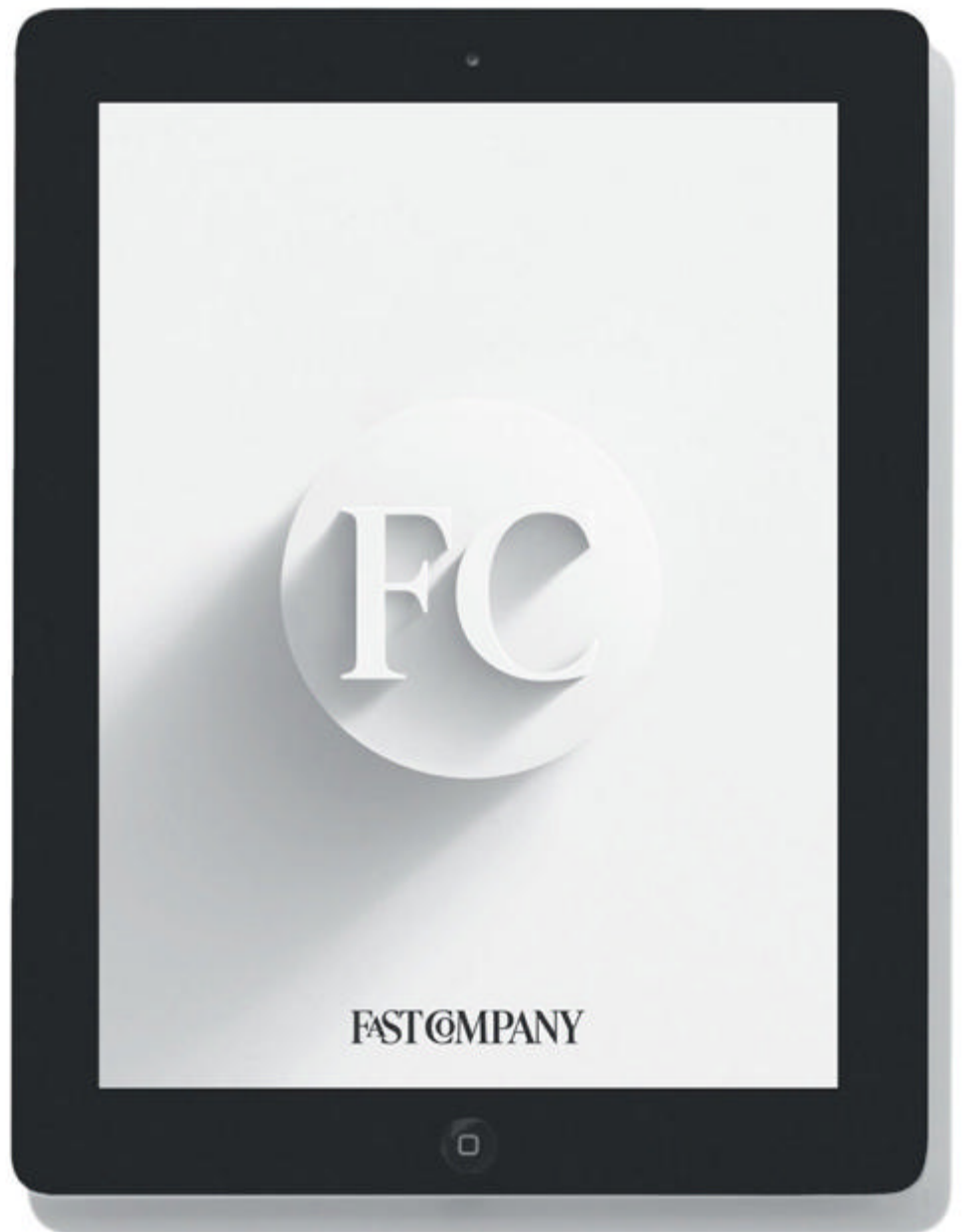
**Payroll Manager/Accountant**  
Chareyl Ramos

**Office Assistant/Receptionist**  
Alyssa Parsons



INTRODUCING THE NEW

# **FAST COMPANY APP FOR IPHONE AND IPAD**



A highly curated way to view content from our websites and magazine in one elegant experience.  
Download it now at [\*\*fastcompany.com/iOSapp\*\*](http://fastcompany.com/iOSapp)





## MOST CREATIVE PEOPLE

Catching up with MCP alumni

# State of business

### Charles Rivkin

MCP 2009

#### Then

President and CEO,  
Wildbrain Media

#### Now

Assistant Secretary of  
State for Economic and  
Business Affairs

**His father was** a U.S. ambassador, but as a kid, Charles Rivkin thought that career path was an “impossible dream—like wanting to coach the Yankees.” So he went into finance instead, then moved into the entertainment business, rising to CEO of the Jim Henson Co. in 2000. When he appeared on our 2009 MCP list, Rivkin was the president and CEO of Wildbrain, the company behind Nickelodeon’s toddler-world phenomenon *Yo Gabba Gabba!*

But government was the family business, and

Rivkin never lost interest in public service. He was a major fundraiser for Barack Obama’s 2008 campaign, and in 2009 the president rewarded him with the ambassadorship to France and Monaco. After a successful run in Paris, he was named assistant secretary of state for economic and business affairs in 2014, part of a push by John Kerry to bring more business leaders into the state department.

Rivkin’s current responsibilities include managing international trade and implementing economic sanctions against the likes of Russia and Iran. (He also started the state department’s first podcast.) His overall goals—grow the economy, generate jobs—aren’t so different from a CEO’s, even if the challenges are new. “Leading large bureaucracies is fun, but different from anything I’ve experienced in the private sector,” he says. “It’s about how you engage.”

—Lauren Schwartzberg



**Best development of the past six years** President Obama’s leadership. “Obamacare will

be a lasting legacy.” **Worst development** Terrorism, intolerance, “ethnic and religious

enmity,” and climate change. “We’re living in a very complex world.” **Limited time only**

As a political appointee, his current position will likely expire with the arrival of a new

administration, a state of affairs that has proved to be freeing. “I’m not interested in getting

promoted. My focus is simply on making things better.” **Advice from a master** “Jim Henson

used to always say that media, if used properly, could be an enormous source of good in

the world. I think that goes even more for government.”

## HOW HE STAYS PRODUCTIVE

### Communicate regularly

“When I was in Paris, I was the first ambassador to have town hall meetings with every member of the embassy.”

### Like, really communicate

“It’s amazing when you go into a meeting and explain to people that there really aren’t any bad ideas. I’ve been very impressed by the creativity that our foreign service officers are capable of exhibiting.”

The 2015 Sprinter Passenger Van

# Your dream fits in a Sprinter.



Starting At:

## \$39,995\*

2500 Passenger 144", Low Roof, 4-Cylinder

Businesses of all kinds can lower costs and improve productivity with the 2015 Mercedes-Benz Sprinter. The Sprinter's standard turbo diesel engine delivers up to 18%<sup>1</sup> greater fuel efficiency while newly extended 20,000-mile service intervals<sup>2</sup> can help lower your total cost of ownership. And, to protect your business, new standard Crosswind Assist<sup>3</sup> can keep your vehicle on course in strong winds. Accelerate your business with the commercial vehicle Edmunds calls, "The best full-size van for cargo and passenger purposes." To learn more, visit [mbsprinterusa.com](http://mbsprinterusa.com).

© 2014 Mercedes-Benz USA, LLC

\*Excludes all options, taxes, title, registration, transportation charge and dealer prep fee. Options shown. Not all options are available in the U.S.

1. Fuel savings estimate of up to 18% according to FTP75 testing of engine OM651 (4-Cylinder) versus MY13 OM642 (V6). Individual mileage will vary, based on factors including vehicle load, driving style, road conditions and fuel quality. 2. Driver is responsible for monitoring fluid levels and tire pressure between service visits. 3. Crosswind Assist engages automatically when sensing dangerous wind gusts at highway speeds exceeding 50 mph. Performance is limited by wind severity and available traction, which snow, ice and other conditions can affect. Always drive carefully, consistent with conditions.



**Mercedes-Benz**  
Vans. Born to run.



## MOST INNOVATIVE COMPANIES

Catching up with MIC alumni

# The revolution will take some help

### Nasty Gal

With her online clothing retailer, Nasty Gal, Sophia Amoruso tapped into a young, female demographic that adored her products and message of empowerment. But in January, less than a year after telling *Fast Company* that her startup was “leagues behind where it should be”—and publishing a book of business lessons entitled *#GirlBoss*—Amoruso announced she’d be stepping down as the retailer’s CEO and assuming a more creative role in its branding efforts.

**Milestones:** Nasty Gal opened its first brick-and-mortar location, in L.A., last fall. Under new CEO Sheree Waterson, a Santa Monica location will launch this spring.  
**Challenges:** The company’s growth has reportedly slowed since revenue hit \$100 million in 2012, leaving investors concerned and 10% of Nasty Gal employees without jobs.

**Buzz:** ↔

**“PART OF BEING A #GIRLBOSS (AND JUST A DECENT HUMAN BEING) IS ABOUT PLAYING TO YOUR STRENGTHS.”**

—Sophia Amoruso, in her resignation announcement on the Nasty Gal blog



Nasty Gal founder Sophia Amoruso

### Sproxil

**Milestones:** Sproxil, whose technology weeds out fake drugs in developing countries, partnered with Malaria No More in January to allow the not-for-profit to mine its data to track outbreaks.

**Challenges:** Sproxil’s data risks dilution. Many people take antimalarial drugs only to learn that they don’t have malaria.

**Buzz:** ↑



Sproxil CEO Ashifi Gogo

### NBA

**Milestones:** The NBA partnered with Samsung in February to allow distant fans to catch 360-degree views of basketball games using the electronics giant’s new Oculus Rift-supported Gear Virtual Reality headset.

**Challenges:** For now, VR users will only be able to watch games after they’ve been played.

**Buzz:** ↔



**“WHEN THE DAY COMES THAT A BILLION PEOPLE FROM CHINA CAN FEEL LIKE THEY’RE ATTENDING A HOUSTON ROCKETS GAME COURTSIDE, THAT’S THE HOLY GRAIL.”**

—Jeff Marsilio, VP, global media distribution at the NBA

### Uber

**Milestones:** In January, riding on a \$40 billion valuation high, CEO Travis Kalanick promised to create 50,000 jobs and take 400,000 vehicles off the road in Europe.

**Challenges:** Uber was ordered to halt operations in South Carolina and Madrid; Kalanick was indicted in South Korea for providing illegal rides.

**Buzz:** ↓

# EVEN THE MOST EXPERIENCED EXPLORER NEEDS A GUIDE.

To succeed in business, you need to push the boundaries, explore new possibilities and seek growth wherever it leads you. Of course it helps to have someone who can show you the way.

That's why so many companies rely on HSBC for their global trade and receivables financing needs. With a presence that covers over 87% of global trade, HSBC has the global reach to help you identify and seize new opportunities. And our local expertise can help facilitate both sides of every trading transaction.

**See how we can help your business at  
[us.hsbc.com/globaltrade](http://us.hsbc.com/globaltrade)**



United States persons (including entities) are subject to U.S. taxation on their worldwide income and may be subject to tax and other filing obligations with respect to their U.S. and non-U.S. accounts. U.S. persons and entities should consult a tax advisor for more information. Trade and supply chain transactions may be subject to credit approval. Other restrictions, including specific country regulations may apply. Foreign currency exchange rates may apply to certain trade transactions. HSBC Bank USA, N.A. Member FDIC, Equal Credit Opportunity Lender. Copyright 2015 ALL RIGHTS RESERVED.



# THE RECOMMENDER



**“Beautiful Dreamers** is a wonderful, magical environment with beautiful and eclectic fashion, jewelry, and home wares. I want my whole world to look like this store.”

**Pamela Love**  
Designer; *Fast Company*  
Most Creative People

“I am really inspired by these **essential oils from Muji**, like Lavender or Refresh, a blend of citrus and eucalyptus.”

**Nova Covington**  
CEO, Goddess Garden Organics



“When people ask me about what it takes to start a company, I refer them to the documentary **Sriracha** because it exhibits dedication, pride, passion, joy, and creativity.”

**Iqram Magdon-Ismail**  
Cofounder, Venmo

## What music are you listening to?

### 1 **East Jerusalem West Jerusalem**

BY DAVID BROZA

“Broza brings together both Israeli and Palestinian musicians, most likely at great personal risk. The music is transporting and helps you imagine a peaceful bridging of that divide.”

**Susan Margolin**  
President, Docurama



2  
“When Venmo was getting off the ground, we would go to **Wildlife Control** concerts on the Lower East Side, and their music kept us goin’ on and on and on.”

**Iqram Magdon-Ismail**  
Venmo

### 3 **My Favorite Faded Fantasy**

**Matt Galligan**  
CEO, Circa



### 4 **Too Bright**

BY PERFUME GENIUS

**Pamela Love**  
Designer

“The dynamic float table by **RockPaperRobot** responds to the forces you apply to it without losing its functionality.”

**Kim Gordon**  
CEO, Depict





A STAR ALLIANCE MEMBER 

WIDEN YOUR  
WORLD

TURKISH  
AIRLINES



# MEET ISTANBUL

TURKISHAIRLINES.COM





"You know how you always have the best ideas in the shower? **AquaNotes** are a way to capture those brilliant thoughts."

**Paula Rizzo**  
Producer and author,  
*Listful Thinking*



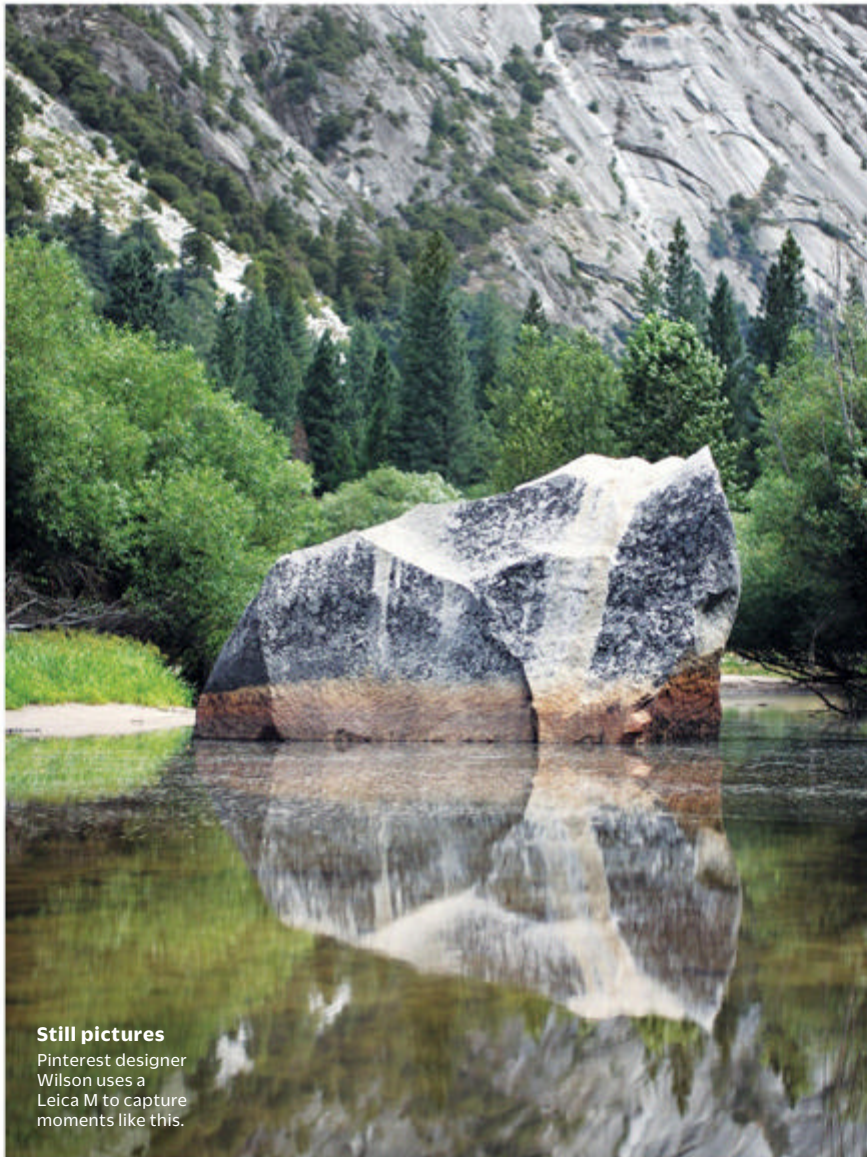
"I'm trying to cut out coffee. **Yogi Tea**—specifically Vanilla Spice Perfect Energy—gives me the energy I need when I've had a late night."

**Brit Fitzpatrick**  
Founder and CEO, Mentor Me



"**Ghostly**, an indie record label from Detroit, has one of the best selections of online goods anywhere, from band T-shirts to collaborations with brands like Warby Parker."

**Ed Aten**  
CEO, Merchbar



**Still pictures**  
Pinterest designer  
Wilson uses a  
Leica M to capture  
moments like this.

## What's your favorite device? **Leica M camera**

"It's an old-school, completely manual focus camera. Unlike with a cell phone, just snapping away will produce nothing but blurred pictures. When I have my camera on me, I am so much more conscious of the beautiful everyday details around me."

**Jason Wilson**  
Principal designer,  
Pinterest; *Fast Company*  
Most Creative People



## Can you recommend a snack? **Newsom's ham**



"We've been using Newsom's country hams for 10 years. Cured and smoked, then aged for over a year, the hams are salty, funky, and moody. So delicious, you'll want to use every scrap of them."

**George Weld**  
Chef and owner, Egg, Brooklyn

### **SPRING PEAS WITH COUNTRY HAM**

From *Breakfast: Recipes to Wake Up For*, by George Weld and Evan Hanczor

1 Tbsp	Fat or oil
2 Tbsp	Minced Newsom's ham
1 ½ cups	Sugar snap peas in their shells, trimmed
	Kosher salt
	Black pepper

### **INSTRUCTIONS**

- Heat the fat in a sauté pan over medium heat. Add Newsom's ham and cook gently until the fat is translucent and the ham has just started to crisp at the edges, about 3 minutes. Add peas and toss to coat with fat.
- Cook over medium heat until the peas are bright green but still have a little crunch, about 3 minutes more. Season to taste with salt and pepper. Remove from heat and serve.

# Off-the-Wall Innovation. Off-the-Charts Efficiency.

REMOTE  
ACCESS

AVG.  
**20%**  
SAVINGS  
ON HEATING AND  
COOLING COSTS\*

WORKS  
WITH ALMOST  
ANY SYSTEM



## Introducing the Côt™ Thermostat: A Smart Thermostat That Lives Up to the Name.

From the people who invented modern air conditioning comes an easy-to-use and efficient Wi-Fi® thermostat that puts access to your heating and cooling system right in the palm of your hand. In addition to its convenient wireless connectivity, the programmable and highly adaptable Côt thermostat can save you an average of 20% on heating and cooling costs with its intuitive software and helpful energy-use reports\*. The Côt thermostat, exclusively from your local Carrier® expert.



For all your cooling and heating needs, visit [carrier.com](http://carrier.com) or call 1-800-CARRIER.

©Carrier Corporation 2/2015. Wi-Fi® is a registered trademark of the Wi-Fi Alliance Corporation.

\*Based on a 2012 third-party study comparing Carrier® Côt™ technology to the estimated cost of a non-programmable thermostat set to 72° F at all times.





**WHAT ARE YOU GETTING READY FOR?**

Whatever your day has in store for you, start it off with Edge® Shave gel. It creates a layer of lubricating molecules that helps your razor give you a close shave with less irritation.



**GET  
YOUR  
EDGE™**



# The biggest comebacks of the past 20 years

In our fast-changing, startup-crazed economy, it can seem like only the newest companies have the agility to thrive. But entrepreneurship can propel businesses of all sizes and ages—look no further than Apple, which almost foundered in the late '90s before Steve Jobs resurrected it to be the most valuable company in the world. So what are the other biggest turn-arounds, and what can we learn from them? As part of our 20th anniversary (*Fast Company's* first issue was in November 1995), we've selected the top comebacks of the past two decades. You already know that Apple's on top. Turn the page to see the rest of the list, including some surprises.

# NEW NEXT



## 1 | General Motors

Once the world's most revered automaker, GM faced disaster in the late 2000s, when it filed for bankruptcy and laid off tens of thousands of workers. Which makes it all the more extraordinary that just a year after the federal government's bailout plan earned it the sarcastic nickname "Government Motors," the company roared back to profitability. After trimming costs and killing its struggling Pontiac, Saturn, and Hummer divisions, GM went public again, raising roughly \$20 billion. By the end of 2013, the government had sold off the last of its GM shares, capping a remarkable turnaround that saved an estimated 1.2 million jobs.

## 2 | Marvel

As the home of Spider-Man, Captain America, and other iconic characters, Marvel has long been the comic-book world's biggest player. But in the mid-1990s the comics market crashed, Marvel went broke, and there was no superpower strong enough to stave off bankruptcy. But fear not! After restructuring, our hero changed its approach, focusing on movies rather than paper and ink. Today, Iron Man, the Avengers, Spider-Man, and X-Men are all billion-dollar franchises, and the company's master plan—to connect many of its characters in a single cinematic universe—has turned it into one of pop culture's most powerful brands.

## 3 | Delta

After evolving from a fleet of crop-dusting biplanes into one of the nation's biggest airlines, Delta was in trouble by the mid-2000s. Squeezed by higher fuel prices and disrupters like JetBlue and Southwest, it was forced to file for bankruptcy. But after renegotiating union contracts and expanding its fleet with used planes instead of costly new ones, among other things, Delta once again took flight. In 2013, 120.4 million passengers boarded Delta planes—more than any other airline.

## 4 | STARBUCKS

Sometimes too much success can mean trouble. In the 2000s Starbucks overexpanded, diluting profits and damaging the brand (not every corner needs a Starbucks). By late 2008 net income had fallen dramatically, cutting the stock price in half. A look at how Starbucks CEO Howard Schultz turned things around:



### 1. Cut the losses

Schultz decided to shut down 900 underperforming stores, which reduced staffing and leasing costs. That also allowed him to invest more in the Starbucks outlets that had been working the best.



### 2. Fix the experience

In 2008, Schultz closed all 7,100 U.S. Starbucks stores for three hours to retrain baristas in the art of pulling espresso. He did away with automatic machines and introduced a retooled house coffee, Pike Place.



### 3. Be more welcoming

Encouraging customers to take a seat, Schultz introduced free Wi-Fi at all Starbucks locations in 2010. In 2014, stores began upgrades to wireless Powermat charging stations for mobile devices. No more plug hunting!

## 5 | OLD SPICE

Once just a crusty old bottle in your dad's bathroom, Old Spice—with Wieden+Kennedy—created a marketing juggernaut that propelled it to the top of its category. Some ads that made Old Spice new again:



### "Painted Experience" (2007)

The first hint of its bracing new direction was this spot with Bruce Campbell, who spouts incomprehensible advice in front of a seemingly endless painting.



### "The Man Your Man Could Smell Like" (2010)

The brand went viral with this ad, in which "Old Spice Guy" Isaiah Mustafa confidently purrs, "Hello, ladies."



### "Internet Responses" (2010)

A triumph of real-time marketing in which people tweeted questions to Mustafa, who then went on a two-day YouTube answer extravaganza.



### "Odor Blockers" (2010)

This bonkers clip, directed by Tim Heidecker and Eric Wareheim, sparked a long-running series of popular, completely over-the-top ads.

Imagine  
400,000  
thinkers and  
tinkerers  
working for  
your startup.



**UPS for small business.** Just because you're new doesn't mean you have to be small. We've got the tools, technology, and a veritable army of experts ready to roll up their sleeves to help you with everything you need. Whether it's helping you get your product to market as quickly as possible or setting you up with online tools to make it all run smoothly, we're here for whatever your business needs. From figuring it out to getting it done, we're here to help. [ups.com/solvers](http://ups.com/solvers)

**ups united problem solvers™**

Copyright ©2015 United Parcel Service of America, Inc.



## 6 | J.Crew

The preppy retailer lost its pep in the late 1990s, and from 1998 until 2003, three CEOs cycled through the fading brand. Then Mickey Drexler and Jenna Lyons came along. In 2003, Drexler—recently fired as CEO of Gap Inc.—invested \$10 million of his personal cash into J.Crew in return for a 22% stake and the CEO title. Soon after he arrived he discovered Lyons, who had quietly been working in the design department for 13 years. She soon became the company's driving creative force, crafting a more upscale product that was equal parts catwalk and Nantucket. It was a hit: During Drexler's first five years at J.Crew, revenues leaped 107%.

## 7 | CBS

With a prime-time lineup full of snoozy grandparent bait like *Murder, She Wrote* and *Dr. Quinn, Medicine Woman*, the Tiffany Network sank to last place in the mid-1990s. That changed after CBS hired Leslie Moonves away from Warner Bros. TV, where he'd green-lighted such shows as the zeitgeist-defining *Friends*. The Moonves era has produced a slew of huge hits—*CSI*, *Survivor*, *Two and a Half Men*, *The Big Bang Theory*—and CBS is now the nation's most-watched network.

## 8 | PABST BLUE RIBBON

Launched in the 19th century, iconic Milwaukee beer PBR reached peak popularity in the 8-track era. But by the late 1990s, the brew had gone flat. Here's how it came back:

1. **Think younger**  
In 2001, with sales hitting an all-time low, the company brought in Benetton exec Brian Kovalchuk as CEO and Neal Stewart as brand manager. Stewart was just 27 at the time.
2. **Do your research**  
One of the few places where sales were up was the hipster hub of Portland, Oregon. Young people embraced the brand due to its no-frills image, lack of cheesy advertising, and affordability.
3. **Market it smartly**  
PBR sponsored cool events like gallery openings rather than buy traditional ads. Since 2001, national sales have increased by 165%.



## 9 | Nintendo

Remember the GameCube? Nintendo dominated the video-game world in the '80s and '90s with products like the Game Boy, but in the early 2000s Sony and Microsoft launched the PS2 and Xbox, and Nintendo's response—an underpowered purple box that screamed “me-too product”—was a flop. Then Nintendo embraced its individuality with the DS, DS Lite, and Wii, each of which would go on to sell around 100 million units worldwide.

# Ambition knows no time zone.



**UPS for imports and exports.** You're not about to let a little geography get in the way of growing your business. Neither are we. We'll help you with everything from choosing the right services to filling out the international forms you need. With a powerful network of nearly 80,000 employees outside the US and serving more than 220 countries and territories, a world of opportunity awaits. From figuring it out to getting it done, we're here to help. [ups.com/solvers](http://ups.com/solvers)

**ups united problem solvers™**

Copyright ©2015 United Parcel Service of America, Inc.



## 10 | CONVERSE

It ruled the athletic market from its founding at the beginning of the 20th century until the 1970s, but then Nike and Adidas muscled their way in and Converse faded, filing for bankruptcy in 2001. How it rebounded:



**2003:** Nike buys Converse and implements a counterintuitive plan: Make the brand less about sports and more about style.



**2005:** The shoe company expands a previous partnership with John Varvatos to create a clothing line, capitalizing on Converse's association with cool musicians.



**2011:** Converse builds on its new reputation as a fashion and life-style brand with hip initiatives like Rubber Tracks, a recording studio for emerging artists in Brooklyn.



**2014:** The company sues 32 competitors, including Ralph Lauren, for allegedly producing knockoffs. Annual revenues hit \$1.7 billion, up from \$205 million in 2003.

## 11 | Netflix

The announcement went out in the summer of 2011: "We will no longer offer a plan that includes both unlimited streaming and DVDs by mail." Subscribers would have to join two separate services—one of them ludicrously dubbed Qwikster—and pay \$16 a month instead of \$10. The ensuing backlash and exodus stunned investors; more than 800,000 customers fled Netflix in a single quarter, sending its stock plunging from \$300 a share to around \$65 by year's end. Netflix quickly scrapped Qwikster and apologized, but the company only truly recovered from the gaffe with original series such as *House of Cards*, which launched in 2013. Soon profit was skyrocketing, stock hit \$400 per share, and Amazon and Hulu were working furiously to catch up.

## 12 | Disney Animation

Disney may be the best-known name in children's entertainment, but its once-revered animation division began the 21st century in a major slump. After '90s successes such as *The Lion King*, the studio started churning out duds like *Hercules* and *Fantasia 2000*. The result was a major downsizing in the early 2000s. But after Disney acquired Pixar in 2006 and Ed Catmull and John Lasseter took charge, the studio roared back with hits like *Tangled* and last year's world-dominating *Frozen*.



## 13 | Burberry

Nobody expected the fusty Burberry to survive the storms of the modern fashion marketplace. Credit two American executives with reviving the British brand: Rose Marie Bravo and Angela Ahrendts (who now runs Apple's retail division). As CEO from 1997 to 2005, Bravo brought in designer Christopher Bailey. He and Bravo's successor, Ahrendts, took the turnaround from there, deftly blending updates of the old (that traditional trench coat, that familiar check) with an embrace of the new (social media, aggressive China strategy). That led to an unprecedented resurrection, record financial results, and acclaim for a fashion house that's once again a luxury trendsetter.

## 14 | Lego ▲

"Everything is awesome?" Not for the toymaker in the 1990s, when Lego was suffering due to the rise of video games and other competition. In 1998, the company lost money for the first time. Then Jørgen Vig Knudstorp stepped in as CEO in 2004, and things started to snap into place. Knudstorp cut costs and introduced soon-to-be-popular Lego lines like Ninjago. It worked: By 2013 Lego was the world's most profitable toymaker.





## From figuring it out to getting it done, we're here to help.

Bring us your problems. Your challenges. Your just about anything. Because we're not just in the shipping business, we're in the problem solving business. It doesn't matter if you're a big company or you're just you, we'll help make it happen. We're 400,000 people around the world serving more than 220 countries and territories, ready to roll up our sleeves and get to work. So bring us your ideas, your questions, your boldest business plans yet. [ups.com/solvers](http://ups.com/solvers)



**ups united problem solvers™**

Copyright ©2015 United Parcel Service of America, Inc.



## 15 | Target

It used to be just another big-box value store, but in the 2000s Target rethought its image, luring higher-end customers with surprising partnerships (Isaac Mizrahi, Missoni, Lilly Pulitzer) and slick marketing. That new strategy—matched with a rapid expansion—transformed Target into *Tar-zhay*: a mass-appeal retailer that could deliver everyday needs in style. By 2005, Target had reached \$50 billion in annual sales.



## 18 | Lower Manhattan

The 9/11 attacks had a profound economic impact on New York, but by the time One World Trade Center opened in late 2014, the area was once again bustling. More than 400 companies big and small have relocated to lower Manhattan since 2004. Combine that with a boom in tourism and it's no wonder luxury brands such as Saks Fifth Avenue, Tiffany & Co., and Hermès are flocking to the area.

## 19 | Bacon

With foodies now drooling over all manner of cured-pork products, it's easy to forget that those greasy strips used to just be something you ate with your eggs. Or maybe not even that: In the '80s, animal-fat phobia ate into sales by as much as 40%. But by the early 2000s, bacon had its sizzle back. Celebrity chefs championed it as the ultimate flavor booster, and the low-carb-diet fad made it actually somehow seem kind of healthy. Bacon mania ensued, showing up everywhere from burger spots (Wendy's Baconator) to bars (bacon vodka, anyone?). That's part of the reason pork sales in the food-service industry outpaced all other meats between 2001 and 2013, and sales were up another 11% in 2014, making bacon a \$6 billion business.

## 16 | THE NEW ENGLAND PATRIOTS

In the late '80s and early '90s, the Pats were a bad team with a stadium in bankruptcy. Here's how owner Robert Kraft—who purchased the team in 1994 for \$172 million—turned them into four-time Super Bowl winners worth an estimated \$2.6 billion:

### 1. Look forward

When Kraft bought the Pats, he realized there could be a big payoff if he upgraded the team's aging home base. The \$325 million Gillette Stadium opened in 2002, and since then every game has sold out.

### 2. Hire smart

In 2000, Kraft staked his team's future on a pair of nobodies: coach Bill Belichick and sixth-round draft pick Tom Brady. In retrospect, it was a stunningly savvy move: They're now two of the league's biggest names.

### 3. Go bigger

Kraft opened a 1.3 million-square-foot retail and entertainment complex next to the stadium. It operates all year, not just during the season. Now the Pats are the NFL's second most profitable operation.



## 17 | Lacoste ▲

Born on French tennis courts in the 1930s, this powerhouse of popped-collar polo shirts had faded by the early 1990s due to general alligator-logo fatigue. To get young people excited about the label, Lacoste stopped licensing its name, no longer sold clothes in outlets like Walmart, and hired a high-fashion creative director to reboot the brand. It also opened well-designed boutiques and targeted women with accessories like handbags. That effort led to newfound fashion-world cred and a massive sales boost.

Contributors: Jeff Beer, Joe Berkowitz, John Brownlee, Austin Carr, Jeff Chu, Jason Feifer, Jillian Goodman, J.J. McCorvey, Evie Nagy, Nikita Richardson, Danielle Sacks, Lauren Schwartzberg, Mark Wilson

IT IS THE WEAK MAN WHO URGES COMPROMISE — *ELBERT HUBBARD*



THE NEW CTS-V  
#DAREGREATLY





# "I love the handshake, you know? I really like to collaborate with people"

HER LAST ALBUM WAS AVAILABLE AS AN APP. HER NEW VIDEO WAS MADE FOR OCULUS RIFT. ICELANDIC VISIONARY BJÖRK LOVES TECHNOLOGY, BUT MOSTLY SHE CONSIDERS HERSELF A WARRIOR FOR SOUND.

## Interview by Rob Brunner

**Your new album, *Vulnicura*, is an account of breaking up with your longtime partner. How does working on such emotional material affect your process?**

● This has probably been the most impulsive album I've done. I just had to listen to my gut, what felt right. What threw me a lot was just how difficult it was. Every time I would want to skip it and just do a disco album I [couldn't], because it was this big lump of songs I just had to deal with. Most people who go through a period of grief, it's a process. It's like chapters in a book: You do the first chapter and then you have to do the next chapter. In that sense it was a process that I wasn't in control of.

**Speaking of not being in control, the album leaked two months ahead of schedule, forcing you to release it early. That must have been particularly upsetting.**

● At that point I had had two years of things happening to me that I didn't want to happen to me, so my Buddhist muscle had been well exercised. "Okay, another thing has happened to me that I didn't want to happen to me! I have no choice but to deal with it." So in a strange way it was in the spirit of the album in that you don't have a choice. And

I was *dying* to get this album out and over and done with. So I think in a way it was a strange kind of blessing.

***Vulnicura* is not currently available on Spotify. Why not?**

● We're all making it up as it goes, to be honest. I would like to say there's some master plan going on [with the album release], but there isn't. But a few months ago I emailed my manager and said, "Guess what? This streaming thing just does not feel right. I don't know why, but it just seems insane."

**Why is it insane?**

● To work on something for two or three years and then just, Oh, here it is for free. It's not about the money; it's about respect, you know? Respect for the craft and the amount of work you put into it. But maybe Netflix is a good model. You go first to the cinema and after a while it will come on Netflix. Maybe that's the way to go with streaming. It's first physical and then maybe you can stream it later.

**You have a long history of fruitful artistic collaborations. What have you learned about working with other people—while keeping your own creative vision intact?**

● You can't really control it. If it's fertile, it's fertile, and if it isn't, it isn't. It's similar to friendships. You know in your heart of hearts with a new friend if you'd still have something to talk about in three weeks or if you'd be bored shitless with each other. It's also important to be truthful with each other. Every few weeks you have to check if everybody is still up for doing this or not. But I love the handshake, you know? I really like to collaborate with people.





**Spot-defy**

"It's not about the money, it's about respect. Respect for the craft and the amount of work you put into it."



**Your post-Sugarcubes solo career—which began in 1993—has closely matched the rise of the modern digital age. How has that affected the way you create and also what your music sounds like?**

• A lot. It's kind of funny, because I'm actually not that good with technology. Usually people help me out. But I grasp pretty quickly the potential of it, even though I don't end up reading the manual myself. Technology just gave me so much freedom to do things that I couldn't have done before. When the laptop first came out, it gave me a lot of freedom, in that I didn't have to work with a group of musicians. I could be a tyrant. [Laughs] I mean, don't get me wrong: I loved being in bands. But you make all these democratic decisions all of the time. That is really exciting and healthy when you're a teenager and maybe into your twenties, but when you get a bit older you know more what your individuality is as an artist. I kind of wanted to discover what is my music.

**Twenty years ago you released the song “The Modern Things,” about machines that “multiply and take over” the world. Clearly, technology can have a downside too.**

• It's like anything: It's how we use it. There was an article in an Icelandic newspaper in 1905 or something when the telephone came up. They were like, “Oh, now people will never speak face to face.” And obviously that never went away. There's always that fear of the tools taking over. You have to define the morality of it: Are you going to destroy with it or are you going to be creative with it? It's a choice. I'm not saying I always succeed. Definitely not. I'm as guilty as anyone of collapsing in front of Netflix after a long week. [Laughs] My daughter and I watch *Adventure Time* a lot.

**Your last album was available as an app, which uses your music to teach kids about sound, science, and nature. It recently became the first app acquired by New York's Museum of Modern Art.**

• I was really chuffed with how many people got into it. It's now being taught in Scandinavian schools.

**Does this mean you're getting tired of the old-fashioned album? Is that format, which is now more than 50 years old, going to disappear?**

• It depends what sort of story you want to tell. I think there's a reason why [albums are] 45 minutes. I don't think it's a coincidence that movies are the length they are. It's a certain storytelling-by-the-fire, cavemen, DNA instinct that feels really natural. But there's all kinds of music. A lot of the songs I listen to, I don't want to hear them as albums. They're pop songs or whatever. And then there are other ones where I want to sit down and listen to a story.

**“THERE'S ALWAYS THAT FEAR OF THE TOOLS TAKING OVER. YOU HAVE TO DEFINE THE MORALITY OF IT: ARE YOU GOING TO DESTROY WITH IT OR BE CREATIVE WITH IT?”**

**You and director Andrew Thomas Huang recently shot a video in Iceland for “Stonemilker” that will be available for Oculus Rift.**

• It's easy to get really intimate [with virtual reality]. It's almost more intimate than real life. It also has this crazy panoramic quality. I think it's really exciting.

**Can you see releasing an album for Oculus Rift? Maybe people could play along on virtual instruments.**

• Yes and no. Andrew and I have had some conversations. When I did the app album, it was all based on touch screens and the fact that I knew I could [create a virtual] music school, a dream since my childhood. I only did that album because I felt like I had content that made sense, that could relate to the technology. It can't just be working with the gadget for the sake of the gadget. But also it's about budgets. You can do apps cheaply. Apps was kind of punk, actually. It was like starting a punk band again. Filming for Oculus Rift is not.

**Another Oculus Rift video will be shown as part of a MoMA retrospective of your career, opening on March 8. The curator, Klaus Biesenbach, apparently approached you 15 years ago, and you said no.**

• I can't remember. He might have asked me and I just thought it was a joke. How do you hang songs on the wall?

**Why say yes now?**

• He kept asking. He wouldn't give up. He said we could do what he called a “midcareer retrospective,” which to me sounded hilarious. I mean, I'm very flattered too. I just don't think about my work in that way. I'm usually trying to work out how I'm going to do the next thing. What got me interested was that MoMA commissioned a new piece.

**So it was the chance to do something new, then, not just look back.**

• Yeah, that was the main reason. Also I had a conversation with my friend Antony [Hegarty, of Antony and the Johnsons]. I was 50-50 about it, and he was like, “Do it for women! Do it for sound!” I've been feeling like the daughter of my father, who is a union leader who fights for the lowest paid in Iceland. I became the union leader for sound in a visual environment. I don't know exactly who the MoMA audience is, to be honest, but I've been having an imaginary audience, which is sort of the average person who doesn't listen to music that much. She goes on a weekend trip with her family to MoMA and discovers sound a little bit, and she thinks, Oh, I actually love this. Sound waves going through my body: It feels nice! I'm going to listen to some more music. 🎧

### 30-SECOND BIO

#### Name

Björk Guðmundsdóttir

#### Hometown

Reykjavík, Iceland

#### Big break

Released her first album—featuring a cover of the Beatles' “Fool on the Hill” (which you can hear on YouTube)—at age 11



#### Solo career

Eight studio albums, plus the soundtrack to the 2000 film *Dancer in the Dark*, which she also starred in. Has sold more than 20 million albums worldwide

#### Recent collaborators

Venezuelan electronic artist Alejandro Gheri (aka Arca), who helped create *Vulnicura*'s beautifully desolate beats, and L.A. artist and filmmaker Andrew Thomas Huang, who directed videos for the album's “Stonemilker” and “Black Lake”

#### On joining forces with a museum:

“It's just really complex: how the funding works and the deadlines and the bureaucracy. In the pop world, when you do videos you can pretty much work at your own pace.”

# THE ULTIMATE GUT CHECK



**#1**  
**Kiplinger's**  
2014 BEST OVERALL  
ONLINE BROKER  
4 TIME WINNER<sup>†</sup>



800.FIDELITY | Fidelity.com/score

With so many perspectives out there, it's hard to know when a stock is the right opportunity for you. Invest with Fidelity and you'll get the same stock ratings used by some of the world's leading institutions, consolidated into a single, numerical score.

## EQUITY SUMMARY SCORE by StarMine®.

Use it to help find your next idea, or as one more gut check. Fidelity.com is the only place you'll find it.

**Trade commission free for a year when you open an account.\*** Find more of the expertise you need to be a better investor.

**\*This offer is valid for new or existing Fidelity customers. In order to receive the commission-free trades, you must designate an existing eligible account or open and fund a new eligible account with net new assets. Deposits of \$50,000 to \$99,999 of net new assets will receive 60 commission-free trades for one year. Deposits of \$100,000 of net new assets or more will receive commission-free trades for one year, up to a maximum of 100 trades. Commission-free trades must be designated to the one account receiving the qualifying assets and are limited to only online domestic equity trades, and do not include options. No cash compensation will be given for any unused commission-free trades; unused trades expire worthless. Offer is nontransferable, limited to one per individual per rolling 12 months and may not be combined with other offers. Fidelity reserves the right to modify these terms and conditions or terminate this offer at any time. Other terms and conditions, or eligibility criteria, may apply.**

**Sell orders are subject to an activity assessment fee (of between \$0.01 to \$0.03 per \$1,000 of principal).**

The Equity Summary Score is provided for informational purposes only, does not constitute advice or guidance, and is not an endorsement or recommendation for any particular security or trading strategy. The Equity Summary Score is provided by StarMine, an independent company not affiliated with Fidelity Investments. For more information and details, go to Fidelity.com.

Investing involves risk, including risk of loss.

Images are for illustrative purposes only.

<sup>†</sup>Kiplinger's magazine, December 2014. Results based on ratings in the following categories: total commissions, investment choices, tools, research, Web site, mobile, and advisory services. Criteria not equally weighted. In 2014, Fidelity tied for #1 with Charles Schwab which ranked 10 leading discount brokers. In 2011, Fidelity tied with TD Ameritrade which ranked 14 discount brokers, was #1 in November 2008 which ranked 12 discount brokers, and tied for #1 with Muriel Siebert in 2007 which ranked 10 discount brokers.

**System availability and response times may be subject to market conditions.**

Fidelity Brokerage Services, Member NYSE, SIPC. © 2015 FMR LLC. All rights reserved.

691501.2.0



# Stealth doctors

MICROSCOPIC ROBOTS WILL DELIVER MEDS TO PLACES NOTHING ELSE CAN REACH.

By Ben Schiller

**Tiny machines** that roam our bodies, delivering drugs and killing tumors: It sounds like science fiction, but someday—depending on how long it takes devices such as the three seen here to reach the market—it'll be just plain science.

## 1. The corkscrew

This swirly robot was developed by teams in Israel and Germany. Don't be scared: "It's not like you inject them and then they move around the whole body," says researcher Alexander Leshansky. Instead, doctors direct the robot via an external magnetic field, which also provides power.

### What it's good for:

Agility. With a diameter of barely a micron (a human hair is 50 to 100 microns), the corkscrew is too small to navigate the strong current of the bloodstream. But its size does let it move through tiny spaces, like the pores of a cell membrane.

## 2. The scallop

Researchers at the Max Planck Institute for Intelligent Systems in Germany have developed a device that pulls itself along by opening and closing two shell-like silicone wings.

### What it's good for:

Power. The 800-micron-wide bot keeps moving even in thick bodily fluids. It would be able to deliver a drug directly to the gel-like vitreous of the eye, for example—a more effective way of getting medicine where it's needed.

## 3. The cage

The nickel-coated cage developed by researchers in South Korea, Hong Kong, and Zurich is about 100 microns long, and is also powered by electromagnetic field.

### What it's good for:

Cargo. With its large surface area, the cage is able to transport more drugs than other designs, and could even possibly transport cells to be used for tissue and organ regeneration.

# THE NEWEST THING IN BATTERIES ISN'T 100% NEW.

Introducing *Energizer*® EcoAdvanced™



TM



Our longest-lasting alkaline ever is also the  
**WORLD'S FIRST** AA battery made with **4% RECYCLED BATTERIES**.

**that's positivenergy™**

[energizer.com/ecoadvanced](http://energizer.com/ecoadvanced)



© 2015 Energizer  
Energizer, Energizer Bunny design, EcoAdvanced, card  
and label graphics and other marks are trademarks of Energizer.



## How bizarre

EX-FAB EXECUTIVE BRADFORD SHELLHAMMER NEVER WANTED TO START ANOTHER COMPANY—WHICH MAKES HIS NEW STARTUP, BEZAR, SOMETHING OF A SURPRISE.

By Rebecca Greenfield

Photographs by Andy Ryan

**Bradford Shellhammer** was soul-searching on a beach in Rio. It was February 2014, and all he knew was what he *didn't* want to do with his life. “I didn’t have dreams of starting another e-commerce company,” he says. He was too bruised.

A few months prior, Shellhammer had stepped down as chief design officer of Fab, the design-obsessed flash-sale site he had founded in 2011 along with Jason Goldberg, the company’s CEO. Fab was a hit early in its run, scooping up \$336 million in venture capital, but it quickly started to experience growing pains. To keep up with the expectations that come with bundles of funding, Fab ballooned from a 14-person design shop into a 700-person corporation that looked more like a traditional retailer than a nimble startup. “Fab would be a very powerful business if it didn’t have ambitions to be three times as large as it is,” an analyst told *Fast Company* in 2013. Instead, it struggled to find its way. Revenue fell short, missing its target by 25% in



### Colorful character

Former Fab chief design director Shellhammer has built a career selling his own eclectic taste.





## Everything we do best. All under one panoramic sunroof.

**The new Volkswagen Touareg TDI® Clean Diesel.** Let the sun shine down through the available panoramic sunroof\* on every luxurious detail in the new Touareg, the pinnacle of German craftsmanship. Get comfortable in its 8-way power-adjustable heated front seats and enjoy available new features, like Lane Departure Warning, Autonomous Emergency Braking,\*\* and Adaptive Cruise Control – all of which help offer the invaluable amenity of more confidence on the road. It's everything we've perfected, perfectly combined. **Isn't it time for German engineering?**



**Das Auto.**





2012, and the company is rumored to have lost \$90 million in 2013.

After he returned from the beach, Shellhammer started a design consultancy, which led to a half-time job with his first client—Backcountry, an online camping-gear retailer—as its chief design officer. It was an odd fit. “I went in there without any connection to the outdoor world other than I like backpacks,” he says. Backcountry didn’t turn Shellhammer into an outdoorsman, but it did show him how a profitable e-commerce business operates. It also gave him a chance to mend his ego and learn skills beyond curation.

But Backcountry didn’t satisfy his soul. A few months in, Shellhammer started “getting itchy,” and soon had an epiphany. “You’re not a one-trick pony, Bradford!” the epiphany said. “I am much more talented than a guy who can pick color,” Shellhammer concluded. “I have a vision of this thing that needs to exist in the world.” And “this thing,” it turns out, is an e-commerce company.

Bezar, which launched in mid-March, has echoes of Fab, although Shellhammer insists it’s different. The site will host digital “pop-up shops” where designers, handpicked by Shellhammer and a small team, will sell their products in three-day bursts. On a given day there will be one shop per category: home goods, art, accessories, and jewelry, all in the \$60 to \$100 range to make for easy impulse buying.

What else makes Bezar different? For one, the stuff. Unlike One Kings Lane and Zulily, Bezar won’t

#### Room with a view

Shellhammer’s home, near New York’s Union Square, is an expression of his sensibility.

**“I DON’T WANT TO JUST BE THE GUY WHO IS DOING FAB AGAIN,” SHELLHAMMER SAYS.**

sell excess inventory. The site will operate more like a traditional retailer in that sense, giving wholesale goods a standard markup and offering exclusives on particular items. Shellhammer hesitates to use the words *flash sale* when describing the site, but he does hope that the urgency of the three-day time frame will drive users to buy.

Wearing an emerald button-down and a matching scarf that has been shredded to look like cooked spaghetti, Shellhammer says that his taste has matured. You won’t find “kitsch” items on Bezar, such as the hamburger sweatshirts and beard beanies that Fab became known for. In

addition to small designers, Shellhammer intends to recruit big-name brands to launch and sell limited-edition collections and collaborations on the site. In his wildest dreams, Shellhammer would hope to see Bezar evolve into a digital marketplace like Etsy, but with a stylish and eccentric gatekeeper. Its name, an alternative spelling of both bizarre and bazaar, is a nod to that goal.

“I don’t want to just be the guy who is doing Fab again,” Shellhammer says. He wants Bezar to be the Fab that never was. “At its core, we were there for these [designers], and at the same time giving consumers an alternative to all the stale choices. Fab lost sight of that.”

Still, he says, “there was a great love for Fab, and that did help me.” About half of the thousand designers already

signed up to sell products on Bezar previously sold on Fab. And more than 10,000 potential customers signed up for access to the site in early January, even though at the time it was nothing more than a “Coming Soon” landing page.

The startup also had no trouble raising money. A group of 20 investors and advisers, including design guru Yves Béhar and five of Fab’s original backers, have put in a total of \$2.25 million. Shellhammer kept the round small on purpose. “This is a lesson I learned: Don’t take more than you need,” he says. Shellhammer, who personally interviewed the first 300 of Fab’s employees, doesn’t see Bezar getting to 20 people in the first year. And he’s more than happy with that.

Today, having laid off 500 of its employees, Fab has transformed itself into a manufacturer and online retailer of original furniture, called Hem. (As this issue was going to press, Fab announced that it would sell off its remaining assets.) “Jason has a different view of how to make a business,” Shellhammer says. “I think what he is doing is really interesting. I think it’s beautiful. It’s not what I would do.” For his part, Goldberg says that he’s supportive of Bezar, too. “Bradford is an amazing curator and tastemaker,” Goldberg said in an emailed statement. “His passion is infectious. I’m confident he will be fabulously successful with Bezar.”

Shellhammer insists Bezar and Fab aren’t competitors, anyway. “[Jason] is hard-core focused on this furniture business,” he says, then pauses. “Maybe we can sell it?” ☺



#### **UNIVERSITY PARTNERSHIP**

Targeted state investment aimed to triple the number of undergraduate degrees awarded annually in computer science



#### **35% COST SAVINGS**

State incentive on labor and production costs for software development



#### **LED FASTSTART®**

Customized workforce recruitment assistance



#### **HIGH-TECH FACILITY**

Technology center at the University of Louisiana at Lafayette's Research Park



#### **PRO-BUSINESS CLIMATE**

Second-lowest state/local taxes for new business operations in the U.S., according to the Tax Foundation and KPMG

**“Louisiana’s custom-fit solutions provide CGI access to top talent for IT innovation that benefits our clients globally.”**

**DR. JAMES PEAKE** | CGI FEDERAL PRESIDENT

CGI, a global leader in delivering high-quality IT services to government and industry clients, is utilizing Louisiana's custom-fit solution to bring 400 high technology jobs to its new technology center in Lafayette. What can Louisiana do for your business? Find out at **[OpportunityLouisiana.com/CustomFit](http://OpportunityLouisiana.com/CustomFit)**.



# Troubleshooting the supply chain

INTEL'S CAROLYN DURAN IS SETTING A HUMANITARIAN PRECEDENT FOR THE REST OF THE ELECTRONICS INDUSTRY.

**Early last year,** Intel released the world's first microprocessors built entirely from conflict-free minerals. Carolyn Duran, Intel's supply chain director, explains how she achieved the milestone.

## The problem

For years, government commanders and rebel militias in the Democratic Republic of the Congo have earned an estimated \$185 million annually through the illicit trade of gold and so-called 3T minerals (tin, tantalum, and tungsten)—crucial elements in consumer electronics such as cell phones and tablets. The revenue has financed a brutal ongoing conflict resulting in the deaths of millions of innocent people. Intel no longer wanted to contribute to an economy of suffering.

## The epiphany

Identifying how conflict minerals entered Intel's supply chain would be key to eliminating them, Duran realized. Smelting plants, where raw ore is refined, offered a convenient place to trace the origin of minerals, if only the facilities would comply with a transparent auditing process. That would take some convincing.

## The execution

Over five years, Duran and her team visited 91 smelters in 21 countries, using Intel's purchasing power to put pressure on smelters to do the right thing—that is, develop and implement an auditing system to track minerals so corporate buyers can source responsibly. "We ask for due diligence

to not only understand where the material came from, but also that it's not inadvertently or directly funding conflict," she says.

## The result

Nearly half the world's 3T and gold smelters have now passed conflict-free audits, shrinking the market for illegally traded minerals and reducing warlords' profits. Duran hopes to be able to declare Intel's entire product line conflict-free by 2016, and to inspire companies in other industries to do the same with their metal products. "This is not a problem that Intel or any one company can solve on its own," she says. "We're proud to be a leader in this area, but we're not in it to be the leader; we're in it to get more people engaged." —Rachel Heller Zaimont

## Steely resolve

Intel, working with the NGO Enough Project, has convinced parts of the jewelry industry to join the conflict-free pledge.





Because you can

# TRADE & INVEST

at the same place

Roll over your old 401(k) or IRA today.  
Qualify for up to a **\$2,000 cash bonus.**

Other accounts may qualify.

At Scottrade, you know us for \$7 trades. But, we also have long-term investing solutions available to help make it easier to manage your entire portfolio in one place. Plus, our knowledgeable Investment Consultants can help you make sure you stay on the right track for meeting your goals.

**Visit:** [Scottrade.com/retire](http://Scottrade.com/retire) // **Call:** 1-844-292-7709



**Roughing it**

Founder Michael McDaniel designed the Exo to be both rugged and recyclable.



# Hotel 3.0

REACTION HOUSING WANTS TO PROVIDE DISASTER RELIEF—BUT FIRST IT HAS TO GET HYATT ON BOARD.

**By Sarah Kessler**

Photographs by Ben Sklar

**One side of the** Austin headquarters of Reaction Housing is utterly unremarkable, a big industrial space with a long row of desks and a bunch of computers. The other side is a tent city.

Well, not tents, exactly. Roughly nine feet high with sloping roofs and curved skylights, the structures are called Exos, and they look more like something you'd blast off into space with than something you'd take on a backpacking trip. Inside, two sets of bunk beds fold down from the walls, leaving a person-size aisle clear in the middle. The walls themselves are made of a proprietary

blend of metal and plastic that's engineered to be recyclable. Just barely translucent, they give the place a soft, homey glow.

Reaction Housing founder Michael McDaniel, a Mississippi native who would nevertheless look just right in a Texas cowboy hat, steps into one of the Exos and sets his coffee cup down on the floor. "All the bones of this thing are the same as the disaster unit," he says. Except for the blue polka-dot wall decoration. "We're going to have these be horizontal stripes," McDaniel says.

To be clear: Reaction Housing's mission is to





## HEMP

Hemp is one of nature's most durable and low-impact fibers. It requires little water or fertilizer and needs no herbicides or pesticides. Hemp grows quickly and can be replanted and harvested several times a year. Its cultivation improves the health of degraded soil and rotates well with food crops. We've used it since 1997. Learn more and see all of our hemp products online. [patagonia.com/hemp](https://www.patagonia.com/hemp)

**patagonia**



make temporary shelters for victims of natural disasters. But before the Exos help victims, they'll serve as crash pads at a music festival, the result of a deal that Reaction made this summer with the Hyatt hotel chain. "People were kind of worried about music festivalgoers after the show, coming back a little tipsy and seeing the dots," McDaniel adds.

I'm here in Texas to spend the night in a disaster response unit, but the Hyatt prototype is, if anything, even more important than the original to the company's long-term success. That's because, if McDaniel is going to house even a single disaster victim, he's going to have to make a lot more deals with companies like Hyatt.

**Like much of** the world, McDaniel was appalled by what happened in the aftermath of Hurricane Katrina in 2005. With available housing all but destroyed, about 20,000 people had to spend six days on cots in the Louisiana Superdome. The stadium had no air conditioning, no showers, too few toilets, and too much garbage, all of which

compounded into what the *Los Angeles Times* called "a sweltering cesspool of human misery."

McDaniel, however, was more than appalled. Then a graphic designer at Frog, he was moved to action. He began sketching ideas for a better solution. What he envisioned was a kind of modern tepee, something that could be shipped easily and was movable by hand, but that would provide privacy, security, and enough modern conveniences to make it feel at least a little bit like home.

Inspiration arrived in the form of a sleeve of Styrofoam coffee cups. McDaniel decided to mimic their stackable design, with a rigid one-piece "cup" structure and a separate "lid" for the floor that could travel separately. According to his measurements, about 16 of them could fit, stacked, on the bed of a single semitrailer. Each unit would be light enough for four people to carry together, and no tools would be necessary to set it up. After the birth of his twin girls in 2007, McDaniel spent most of his paternity leave constructing a full-scale model Exo in his backyard out of whatever he

**THERE WERE, IT TURNED OUT, NO NATURAL BUYERS FOR THE EXO.**

#### Floor to ceiling

Reaction and Hyatt employees move an Exo into position. The "lid" portion, which forms the base, is heavier than the "cup," which can be moved by only four people.





## ORGANIC COTTON

Cotton is a natural fiber, but conventionally grown cotton is one of the dirtiest crops on the planet. Organic cotton is farmed without the usual mix of synthetic pesticides, herbicides, defoliants and fertilizers. It uses non-GMO seeds and leverages nature-based solutions to manage pests and build healthy soil. We've used only organic cotton since 1996. Learn more and see all of our organic cotton products online. [patagonia.com/organiccotton](https://patagonia.com/organiccotton)

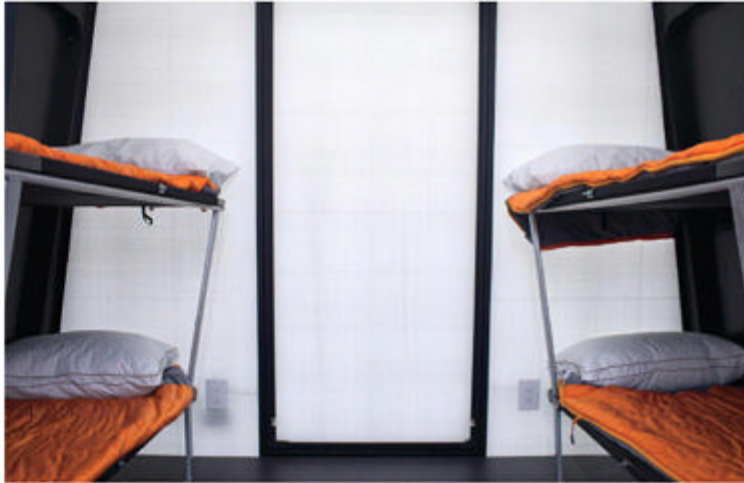
**patagonia**

© 2015 Patagonia, Inc.



### Cabin in the woods

All Exos have outlets for occupants to charge their devices, and in the future they may be outfitted with Internet of Things-compatible sensors.



could find at the hardware store. It was heavier than he wanted it to be, but it was enough, he thought, to prove that his idea was viable.

Oh, boy, was he wrong.

There were, it turned out, no natural buyers for the Exo. Temporary housing is not necessary for most disasters. It's both more comfortable and economical to rely on hotels, churches, and schools to house the temporarily homeless; only in a Katrina-scale disaster is an Exo-style shelter even useful. And then there was the price: While McDaniel was targeting nongovernmental organizations as potential customers, a single \$6,000 Exo was sometimes more than their entire budget per disaster.

Discouraged, McDaniel went to then-Frog president Doreen Lorenzo for advice. With her help, he settled on a new approach: find enough commercial buyers to be able to offset the cost to aid organizations. In 2013, McDaniel took a sabbatical, and he and his designs went out on the road looking for investors.

By the time Hyatt discovered Reaction Housing at a startup competition in 2014, McDaniel had secured enough funding to be able to quit his job at Frog and devote himself to the new company full-time. Hyatt needed an innovative idea: Airbnb was making a killing by providing housing for big events like the Super Bowl and South by Southwest, and Hyatt executives thought

that if they could add additional rooms on an on-demand basis, they might stand a chance at competing. "It was corporate love at first sight," McDaniel says.

Hyatt is starting small. It has purchased 40 specially designed Exos. They sleep two people each and have slightly bigger beds with custom mattresses, linens, and robes, and a separate private bathroom. Hyatt also bought 40 standard Exos that will be donated to disaster-relief organizations. It's a Toms-style, buy-one-give-one model.

**It's 8 a.m., and** McDaniel has returned to the Reaction Housing work space, armed with a box of breakfast tacos.

"How was your night?" he asks me as I creak open the door of my Exo. Truth be told, even with solid walls and high ceilings, it did feel like sleeping in a tent, albeit a very clean tent. More like glamping than camping.

The future of McDaniel's pods is full of questions. How much will it cost to store and transport the units? How will Reaction, or Hyatt, arrange for electricity and running water? Will Hyatt stick around as a customer after the pilot program is over? (The company plans to test them out this summer; it had to put off an experiment at Coachella when McDaniel couldn't manufacture them in time.) What other customers might be interested? McDaniel believes he can sell to construction and gas companies to use as worker housing, but he has also fielded inquiries from people thinking of Exos as hunting lodges, guesthouses, offices, playhouses, and doomsday Armageddon shelters. The more commercial clients he lines up, the more likely it is that he'll be able to get his Exos into the hands of those they were designed for—not-for-profit relief agencies.

"That's the irony of it, isn't it?" McDaniel says, grinning. "Capitalism." 🐸

## GIMME SHELTER

FOUR PROTOTYPES THAT NEVER MADE IT INTO THE FIELD (AT LEAST NOT YET)

### AbelNook

**What was it?** A trailer with adjustable legs that could be set on uneven terrain, didn't require any tools to set up, and folded flat for shipping.

**Why didn't it work?** The cofounders are still looking for investors to foot the bill for manufacturing.

### Zipflat

**What was it?** A set of collapsible plastic walls that could be shipped flat, opened, filled with insulating foam, and used to build a house.

**Why didn't it work?** At about \$100 per square foot, "it was too expensive," says cofounder Scott Jewett.

### Home20

**What was it?** A system developed by a team of researchers at the New York Institute of Technology to use plastic water and soda bottles as durable roofing material.

**Why didn't it work?** Aid organizations weren't interested. Instead, the team is hoping to sell to a company like Pepsi or Coca-Cola that would want to donate shelter after a disaster.

### N.Y.C. Office of Emergency Management prototype

**What was it?** A multilevel unit that could be used in urban communities where there isn't much space for trailers.

**Why didn't it work?** Hopes remain high that it will. OEM employees have been living in the prototype on a rotating basis since last June as part of a yearlong trial. After that, the agency plans to use the data to create a set of performance specifications that can be used as a national model for emergency housing.

**"IT WAS CORPORATE LOVE AT FIRST SIGHT," MCDANIEL SAYS.**



**Stuck in traffic.** *Ideas still moving forward.*



**BrightLink® Pro**  
Your whiteboard, reinvented.

Imagine you could see and write on the whiteboard when you're not in the meeting room. With BrightLink Pro, you can. Collaborate in real-time, whether you're in the room or across the world. Keep writing, without stopping to erase; just add digital pages. When the meeting's done, share the notes instantly through email or a USB thumb drive, so nobody has to take a picture. BrightLink Pro turns any flat surface interactive; you don't need a computer or software to use it. Just turn it on and see how easy it is to reinvent your whiteboard.

**EPSON®**  
EXCEED YOUR VISION

Take a product tour now at [epson.com/movingforward](http://epson.com/movingforward). Or contact an Epson collaboration specialist about introductory offers including our 1st-Time Buyer program. 800-374-7300.

EPSON is a registered trademark and EPSON Exceed Your Vision is a registered logomark of Seiko Epson Corporation.  
BrightLink is a registered trademark of Epson America, Inc. Copyright 2014 Epson America, Inc.





## Street smarts

CHICAGO JOINS CITIES AROUND THE WORLD IN RETHINKING THE RELATIONSHIP BETWEEN PEDESTRIANS AND TRAFFIC.

By Jessica Leber  
Illustration by Jeremyville

**Common sense says** that cars and pedestrians should be kept apart. Pretty straightforward. So why are so many cities challenging that idea? This spring, Chicago will become the latest to do so, as engineers break ground on a \$3.5 million street-improvement project to turn a four-block stretch of Argyle Street in the city's bustling Uptown neighborhood into Chicago's first shared street—whether residents are ready for it or not.

The idea of shared streets harks back to an older time, when roadways were a free-for-all of pedestrians and horse-drawn vehicles. With the rise of the automobile, however, came automobile fatalities, and with them the idea of

separating people into zones: pedestrians on the sidewalk and cars on the street.

When traffic engineer Hans Monderman developed the shared-streets idea in the Netherlands more than 30 years ago, he was going against generations of formal street-design wisdom. Removing signs and signals, he thought, would require both drivers and pedestrians to pay more attention to their environment; in Monderman's initial pilot, vehicle speeds diminished by 40% on average as a result.

"In the traditional system, you see the light is green and then you go, because you trust the system," explains Pieter de Haan, a psychologist at

# FOCUS

## For the most critical questions.

No matter how complex your business questions, we have the capabilities and experience to deliver the answers you need to move forward. As the world's largest consulting firm, we can help you take decisive action and achieve sustainable results.

[www.deloitte.com/answers](http://www.deloitte.com/answers)

Copyright © 2015 Deloitte Development LLC. All rights reserved.

**Deloitte.**  

---

**Consulting**



the University of Applied Sciences in the Netherlands. You gun the engine and don't even notice the little kid getting away from his mother and running into the street. "Shared space creates a little bit of confusion, which forces you to communicate with others."

Not surprisingly, many people—including the elderly and the blind—balk at the idea of shared streets. And indeed, nobody is advocating for total chaos. The Argyle Street plan, for instance, uses landscaping and different paver types to delineate areas for pedestrians, bikers, and drivers. Additional "warning pavers" provide tactile information to the blind, using different textures to indicate where pedestrian areas end and vehicle traffic begins. Small, regularly spaced pillars enforce gentle restrictions on both people and cars.

"Naysayers said, 'People are going to get hit,'" says Patrick Donohue, a project manager with Seattle's Parks and Recreation department, which oversaw a shared-street project in that city's Bell

**"NAYSAYERS SAID, 'PEOPLE ARE GOING TO GET HIT,' " SAYS PATRICK DONOHUE, A PROJECT MANAGER WITH SEATTLE'S PARKS AND RECREATION DEPARTMENT. "WELL, IT JUST HASN'T HAPPENED."**

Street Park last year. "Well, it just hasn't happened." In Ashford, England, for instance, the number of traffic accidents in which a person was injured actually dropped by 50% in the three years after a shared space was built in 2008.

Today there are at least a hundred shared-streets projects in Europe and a handful in the U.S., including London's Exhibition Road and Seattle's Bell Street. Of course, shared spaces are intended for villages, or urban areas where there are plenty of businesses and foot and bicycle

traffic. A 55 mph interstate highway doesn't have the same issues.

Advocates for more livable cities are eager for the idea to spread more widely to street designers in the U.S. Done right, shared streets may help create a lively urban environment. Ethan Kent, senior vice president of the Project for Public Spaces, says, "It's about: How do we create these destination streets that are about social and economic development first, that work because they're also safer?" 🚲

## FOUR WHEELS MEET TWO LEGS

HOW ARCHITECTS AT SEATTLE FIRMS HEWITT AND SVR DESIGN REIMAGINED BELL STREET

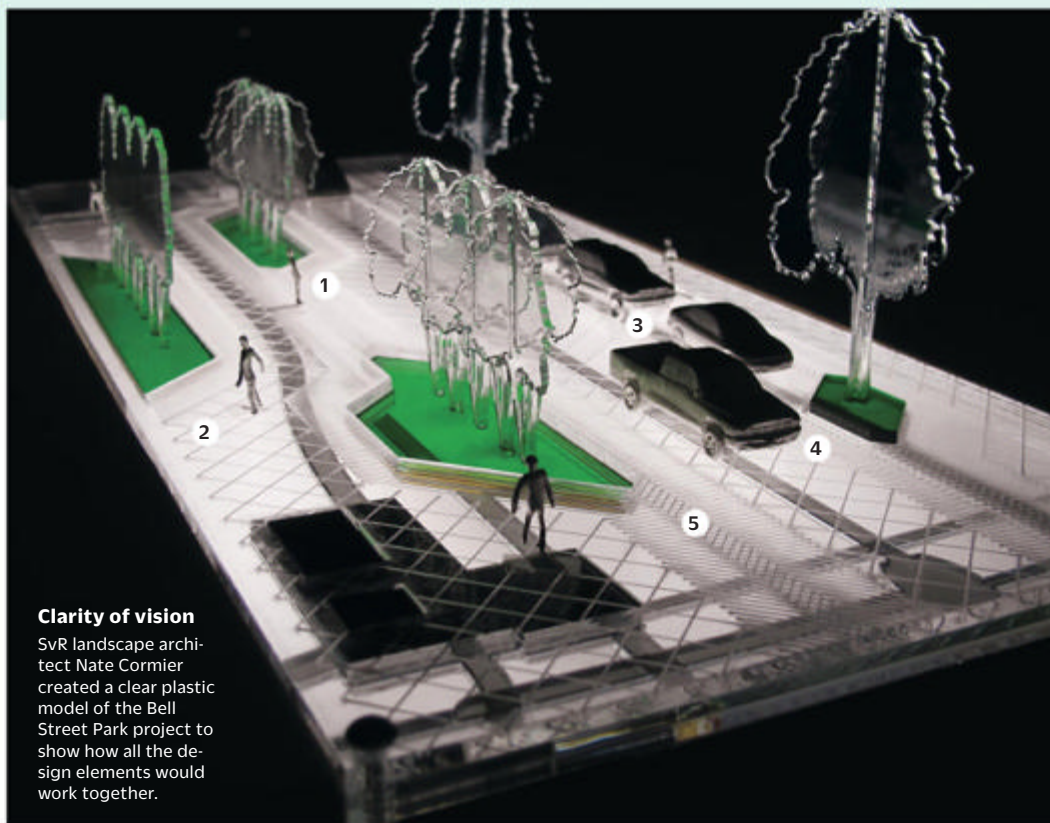
**1.** The roadway was raised to the same level as the sidewalk, so that people and cars share the same surface.

**2.** The pavement was scored at an angle relative to the surrounding buildings to encourage "diverse movements" across the street.

**3.** Varying the width of the roadway encourages pedestrians to gather and linger in "eddies" protected from traffic.

**4.** The roadway was substantially narrowed to open up more room for plants and pedestrians.

**5.** Textured surfaces provide guidance to the visually impaired.



### Clarity of vision

SvR landscape architect Nate Cormier created a clear plastic model of the Bell Street Park project to show how all the design elements would work together.



A man with a beard, wearing a red t-shirt and blue overalls, stands in a brewery. He is leaning on a metal railing next to a large stainless steel tank. The tank has a label that reads "WASH/LAUTER TUN" and "CAP. 15 BBL". The background shows other similar tanks and industrial equipment. The scene is lit with warm, industrial lights. There are some digital overlays on the image, including binary code and circuit-like patterns.

**SIEMENS**

© Siemens AG, 2015. All Rights Reserved.

# Brewed with the most advanced digital technology.

Companies like Schlafly Beer rely on Siemens hardware and software to reinvent manufacturing.

A new era of manufacturing has dawned, one where manufacturers in every industry are relying on a highly skilled workforce and intelligent hardware and software to produce more complex products more efficiently than ever before. And they're turning to Siemens to get it done.

In St. Louis, Schlafly Beer doubled production without sacrificing the quality craft beers that built the company,

by implementing the Siemens BRAUMAT Compact system. Today, it has a distribution area the owners never thought possible.

Siemens is working with some of the most forward-thinking companies to do what matters most, like improving efficiency and productivity, making more with less and growing the economy.

[siemens.com/schlafly](http://siemens.com/schlafly)





# CLOTHES MAKE THE MAN, BUT THE WEB MAKES THE CLOTHES

WHAT A DRESS SHIRT SAYS ABOUT THE FUTURE OF RETAIL

**WHEN I WAS** a little boy, my father took me to his tailor in the sleepy Delhi neighborhood where I grew up. I distinctly remember Binks—its chaos; the reams of cloth, yellow chalk, and measuring tape; and even the smell of tobacco and chai. I felt like a grown-up as I was measured by the old tailor master. He noted my measurements in charcoal pencil, and a few weeks later my father brought home three crisp, white poplin shirts, which fit me perfectly and cost less than \$1 each.

I experience this visceral sense memory when I visit the bright San Francisco loft that houses Trumaker, an online menswear company that specializes in custom-made shirts. Trumaker is one of a growing number of upstarts—J. Hilburn, Knots Standard, Incense Shoes, Modern Tailor, the list goes on—using the Internet, advanced logistics, and a new breed of production methods to revive the idea of mass customized shirts, blazers, suits, and even shoes. Personalized fashion and other consumer items have long been a fantasy of many Internet entrepreneurs. Until now.

What upstarts like Trumaker are doing is applying your body measurements to a made-to-measure pattern to give you a near-custom experience. Custom doesn't translate to bespoke, in which the pattern is completely personalized just for you, but it is a step beyond what's known as made-to-measure, in which a premade pattern can be enhanced with a few personal preferences like collar style. And it's miles better than what you find at mass retailers, where shirts can be too tight, too loose, too long; the sleeves bunch up; the torso billows like a boat sail; or all of the above.

Trumaker is the brainchild of former Bonobos executive Mark Lovas and cofounder Michael Zhang, and Lovas says their company's secret sauce isn't that secret. It's software that takes all

the data about a person—fitting details, sizing, and measurements including photos—and puts it through a simple algorithm that creates an optimal pattern for each individual. “The more shirts we make, the more our system becomes efficient and fine-tunes our algorithm,” Lovas tells me. This pattern (which is based on a few master ones) is sent to a shirtmaker in Malaysia, where machines laser-cut the cloth and then workers stitch a customized shirt.

If you followed the PC boom closely, then you know that mass customization, when done right, can produce impressive results. Through most of the 1990s and early 2000s, Dell Computer was a red-hot company thanks to its ability to allow everyone to create their dream computer—so long as they stayed within a few parameters. Customers paid up front. Dell carried minimal inventory. And it was wildly successful.

Fast-forward to today, and you start to see the similarities between Dell's model and these online custom-clothing upstarts. Except they're focused on goods we buy more often than a computer. Like Dell, they charge before they cut the fabric, and there is no inventory except for the raw materials. No markdowns,

either, and if the software does its job, no returns. “The more predictable, accurate, and consistent pattern data is the real breakthrough, as it allows us to automate about 70% of the process,” Lovas says.

These companies are far from being retail giants, but they point to a new reality. The Internet allows anyone to create and aggregate demand, and it allows them to cheaply tap into new technologies to automate processes that previously required humans.

A few weeks after I visit Trumaker, my shirt arrives. The fabric is luxe, the buttons are top-notch, and there's even a little “OM” embroidered inside the collar. The experience is a world away from that little tailor shop of my youth (and the price is about 140 times more than what my dad paid). But Trumaker, in one shirt, reintroduced me to the long-forgotten concept of a good fit. 🍷

*Om Malik is a partner at True Ventures, an early-stage investor. He is also founder of Gigaom, a Silicon Valley-based, tech-focused publishing company.*



THE INTERNET  
ALLOWS ANYONE TO  
CHEAPLY TAP INTO  
NEW TECHNOLOGIES  
TO AUTOMATE  
PROCESSES THAT  
PREVIOUSLY  
REQUIRED HUMANS.



# Now trade with public opinion on your side.

Introducing social signals, the first trading innovation of its kind.

With social signals from TD Ameritrade, conversations are aggregated on Twitter to provide you with a tailored feed of public sentiment around companies — straight from your trading platform. This way, you can gut-check a potential investment before diving deeper into your research, or perhaps even notice a brand you hadn't considered before.

Social signals. Just one more way TD Ameritrade provides the resources you need to trade with confidence.

Get up to \$600 when you open a new account.  
Visit [tdameritrade.com/socialsignals](http://tdameritrade.com/socialsignals) for details.



*Posts presented in social signals are not subject to any fact-checking, may be without reasonable basis and claims may be unsubstantiated. Thoroughly evaluate all information before trading.*

**Offer valid through 04/30/2015. Funding of \$25,000–\$99,999 receives \$100; funding of \$100,000–\$249,999 receives \$300; and funding of \$250,000 or more receives \$600.** Cash bonus subject to twelve-month funding-duration condition. See website for details and other restrictions/conditions. This is not an offer or solicitation in any jurisdiction where we are not authorized to do business. Market volatility, volume and system availability may delay account access and trade executions. TD Ameritrade, Inc., member FINRA/SIPC. TD Ameritrade is a trademark jointly owned by TD Ameritrade IP Company, Inc. and The Toronto-Dominion Bank. © 2015 TD Ameritrade IP Company, Inc. All rights reserved. Used with permission. The social data discovery, filtering and analysis are provided by SwanPowers, LLC's LikeFolio. SwanPowers and TD Ameritrade are separate and unaffiliated firms.



# Healing hand

THE AUTHOR OF CANCER HISTORY *THE EMPEROR OF ALL MALADIES* IS BRINGING HIS MESSAGE OF HOPE TO A PBS FILM BASED ON HIS BOOK.

**By Adam Bluestein**

Photograph by Rene & Radka

## From doc(tor) to doc(umentary)

Mukherjee wants to help people think about cancer differently.

**Cancer is a difficult topic**, but Siddhartha Mukherjee's 2010 book, *The Emperor of All Maladies*, was such a compelling look at the history and future of the disease that it turned into a critical hit and unexpected best seller (as well as the winner of the 2011 Pulitzer Prize for General Nonfiction). Now *Maladies* is being turned into a three-part, six-hour documentary that will air on

PBS starting March 30. Directed by Barak Goodman (*Scottsboro: An American Tragedy*) and executive-produced by Ken Burns, the film has an ambitious goal: to shift the popular conversation around cancer by emphasizing the impressive progress that scientists are making in both understanding and treating it. "Most people still haven't fully swallowed the changes that life sciences have



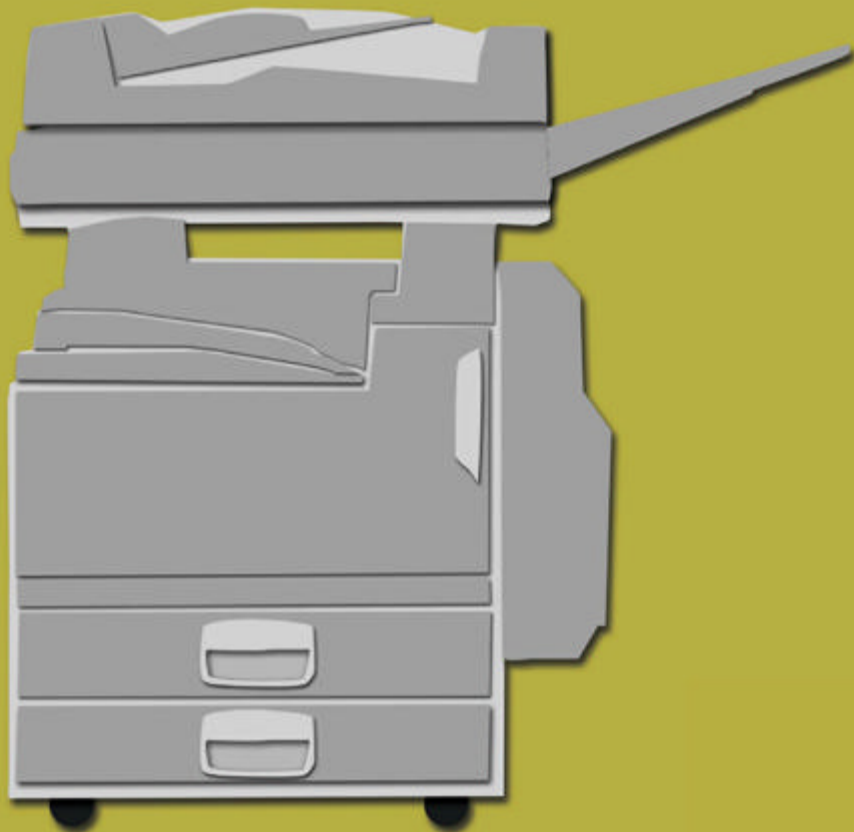
# Saving People Money Since 1936

**... that's before there  
were photocopiers.**

GEICO has been serving up great car insurance and fantastic customer service for more than 75 years. Get a quote and see how much you could save today.

geico.com | 1-800-947-AUTO | Local office

**GEICO®**





brought about in our lives,” Mukherjee says. “The interaction of basic and applied science has had a transformative effect.” Mukherjee, a professor at Columbia University’s Herbert Irving Comprehensive Cancer Center and a practicing oncologist, explains how he’s getting people to change the way they think about this under-discussed subject.

### MAKE IT PERSONAL

● Patients’ experiences drive *Maladies*’ narrative both on the page and on screen. “Throughout the book, I tried to intersperse real-life stories with vast scientific breakthroughs or failures,” says Mukherjee. “Ken and Barak and I agreed that the film—although it’s a history—also needed to follow people in real time to show how the abstract world of knowledge converted into the real world of human patients. We wanted to convey the excitement: This is science brought to life. The patients’ stories show how we’re seeing the war play out in real life, in real terms.”

### BROADEN YOUR VIEW

● To reach a wide audience, Mukherjee realized he needed an inviting approach. As a stem-cell biologist who spends most of his time in a laboratory, he knew a lot about cancer at the micro level, but the issue was how to pull in lay readers. “I had to take a step back and ask, ‘Where are we in this landscape?’” he says. “To answer that question, I had to take a historical approach. History is the tool that allows us to understand the future from the

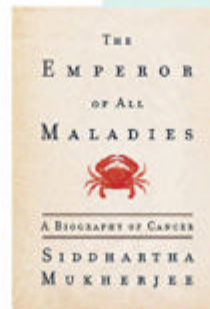
past. That was the genesis of the book. Although there are 4,000 books on the history of the Civil War, nobody had written a book on the history of cancer.”

### ASK THE RIGHT QUESTIONS

● An avid reader who considered majoring in philosophy before turning his focus to medicine, Mukherjee believes his broad education helped him frame the book. “My scientific training taught me how to ask questions in the laboratory,” he says. “But it’s outside the lab where you have to figure out whether the questions are important or not. The scientific and humanistic approaches have to be combined in some way—so you can be extremely incisive on one hand but also know that the questions you’re asking are valuable enough to carry real thinking.”

### CELEBRATE PROGRESS

● Mukherjee says that he and the filmmakers were careful not to put an overly optimistic spin on our decades-long war on cancer. But it’s impossible to deny that real progress is being made—and quickly. “We’re making discoveries by the day that are being translated into new therapies,” he says. “Hope is not an artifice in the film. There’s a sober quality to it, because every inch that’s been gained was gained on the backs of thousands of patients. But inches have translated into feet, feet into territories, and the progress has been remarkable.” 🐞



## PAGE TO SCREEN

THREE LESSONS MUKHERJEE LEARNED WHILE TURNING HIS BOOK INTO A FILM

#### Story is king

“A rule we had on camera was that no one should speak with props: Your hands should be able to convey anything. When you see that on film, it’s amazing. You see the brightest minds—Nobel and Pulitzer Prize winners—using just their hands. That’s great filmmaking. You realize that storytelling is so much more powerful than anything else.”

#### Know when to “switch brains”

“In science and in filmmaking, when you’re starting out, being too critical can kill off a great idea. In that early phase, it’s a very intuitive kind of brain that works. In contrast, when the work matures, you want to be skeptical. You want to be critical. You have to know when to switch over, inside your own brain, between those modes.”

#### Revise. Then revise again

“When the film was fully shot, the entire crew sat down and watched the whole thing for six hours straight one evening. Then we had the most important conversation—intensify that, weaken that, change this around. And this process happened not once, but two or three times—and every time what emerged was a more refined product.”



#### Dynamic duo

Mukherjee with Ken Burns, who is executive-producing the PBS film

# WE'RE HERE TO DO MORE THAN ENTERTAIN YOU.



Not only is Las Vegas home to the most amazing entertainment, but doing business here also does wonders for your bottom line. Consistently rated No. 1 in overall value, our state-of-the-art facilities and renowned service expertise make Las Vegas the place to get the very most out of your next meeting or event. Learn more at [VegasMeansBusiness.com](http://VegasMeansBusiness.com).

**LAS**  
*Vegas*



# A study in contrast

THE KATEDRA DESK, CREATED BY SLOVENIAN DESIGN FIRM DESNAHEMISFERA, IS A PIECE FOR THE AGES.

**By Sarah Lawson**

Photograph by Marcus Gaab

## The new

Kerrock—a composite material similar to Corian—is strong yet malleable, making it ideal for creating Katedra's sleek, futuristic surface. Embedded in one corner is an Aircharge surface charger, which will juice up a cell phone on contact.

## The old

Designer Dejan Kos used wood from the Siberian larch tree—the Old World counterpart to today's indestructible composites—for the drawers. “Wood is an ancient material,” he says. “It’s the first building material, and I left it rough because of that.”

## The timeless

*Katedra* means “cathedral” in Kos’s native Slovenian. The desk’s combination of rough and graceful materials is meant to evoke the place where the terrestrial meets the ethereal. *Around \$2,500, depending on exchange rate*

### Divine inspiration

“You don’t work behind the desk,” says Kos of his design. “The desk works for you.”

**"I can easily display customer referrals through integrated social media!"**

Vebi Barami, Owner of Barami Construction Group, increased his website's social media attention with 1&1 Social Media Center.

[www.baramiconstruction.com](http://www.baramiconstruction.com)

Create your own success story:

**1&1 MY WEBSITE  
TRY IT NOW!**

**MY BUSINESS.  
MY WEBSITE.  
MY SUCCESS.**



Over 70 new clients  
the first year



Over 6,400 Likes  
on Facebook



20% increase  
in business



**1 (877) 461-2631**



**1and1.com**

\*1&1 MyWebsite comes with a 30-day money back guarantee with monthly or prepaid annual billing cycles. If your package is not canceled within the first 30 days, you will be charged in accordance with your agreed billing cycle. Visit [www.1and1.com](http://www.1and1.com) for full promotional offer details. 1&1 and the 1&1 logo are trademarks of 1&1 Internet, all other trademarks are the property of their respective owners. ©2015 1&1 Internet. All rights reserved.





## A farm on every street corner

THE LIGHTING GIANT PHILIPS IS AMONG THOSE TRYING TO USE LEDs TO FUEL THE VERTICAL FARMS OF THE FUTURE.

By Corinne Iozzio

Illustration by Max-o-matic

**Forty-five minutes** outside Chicago, there is a warehouse. From the outside, this warehouse is like any other. Inside, however, instead of crates and boxes, it contains stacks and stacks of fresh herbs, greens, and lettuce, growing under the carefully tuned glow of 7,000 Philips LED-powered grow strips. This warehouse, otherwise known as Green Sense Farm, is one of the first customers of a potentially transformative new business for the Dutch lighting giant: city farming.

For nearly a decade, LEDs have led a lighting renaissance, and for good reason: LEDs use less than half the power of—and run cooler than—fluorescent lights. Furthermore, because they're built on circuit boards, they can be programmed for

everything from televisions to path lights. Only recently have the lights become inexpensive and efficient enough for its horticultural lighting division to start selling them by the thousands.

The opportunity isn't just commercial: Many experts believe that conventional, horizontal greenhouses are insufficient to meet the food needs of growing cities.

Stacking plant beds upward instead of outward will allow farms to be wedged into nooks within cramped urban and suburban landscapes. Replacing fluorescent grow lights with LEDs enables farmers to maximize space by stacking racks

as little as two feet apart. With fourteen 25-foot-tall growing racks lined up in its 30,000-square-foot warehouse (that's 1 million cubic feet of growing space), Green Sense puts out about 4,000 cases of produce a week.

Philips isn't the only major lighting player in the field—GE Japan partnered with a Japanese indoor farming group to open a huge farm last March but is working aggressively to become the market leader. The company's city farming group aims to create modular, scalable systems—including lighting, irrigation, and fertilization—to simplify construction of vertical farms. The group has nearly tripled in manpower this year, and Philips plans to expand and invest further through 2016.

Scaling up food production will become increasingly vital in the next few decades, during which the United Nations estimates that 2.5 billion more people will arrive in urban areas. Greens are the low-hanging fruit, so to speak, for vertical farming, because they mature quickly and are hardier than other veggies. But man cannot live on kale alone. "If you look at feeding the world as an ambition, then higher nutritional value is something you're looking for—say, roots, cereals, and potatoes," says Gus van der Feltz, who joined Philips as the global director for city farming last April. Plant physiologists at Philips's research facility in Eindhoven, Netherlands, are already working on the next generation of vertical farming technology, hoping to make the menu a little more satisfying. 🌱

**SCALING UP FOOD PRODUCTION WILL BECOME INCREASINGLY VITAL.**

# HEALTHIER ISN'T JUST A FEELING

---

## FOR US, IT'S A MISSION



People. Technology. Data. Action.

### HEALTHIER IS HERE

At Optum, Healthier goes way beyond a feeling. Quite simply, it's our passion and our purpose. By combining data and analytics with technology and expertise, we power modern health care like no one else. Our insights quickly lead to better outcomes for hospitals, doctors, pharmacies, health plans, governments, employers and the millions of lives they touch. Which, come to think of it, is a pretty good feeling as well.

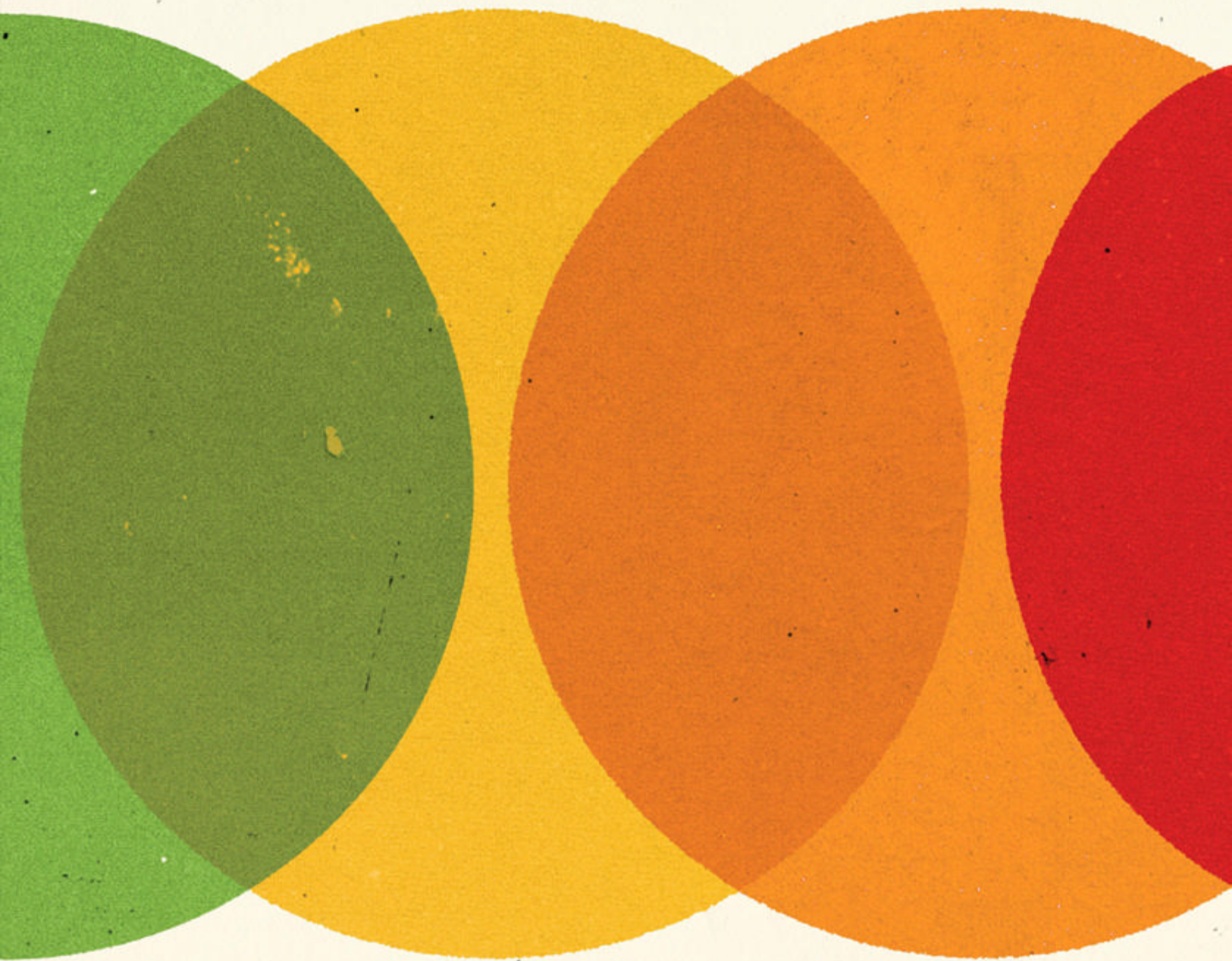
[optum.com](http://optum.com)



---

FASTCOMPANY

# The Real Legacy of Steve Jobs





---

If Apple's historic rise depended on all the standard Steve Jobs clichés, then what are we to make of its dominance now? Time to revisit—and correct—the myth.

**By Rick Tetzeli**

Illustrations by Heads of State





**Wunderkind. Jerk. Innovator. Tyrant. (All of the above.) Even now, almost four years after his death, it's hard to read a story about Steve Jobs that doesn't rely on these kinds of generic labels to explain his character, that doesn't paint him as an obstreperous ingrate who never changed, who cowed coworkers and competitors with an almost magical "reality distortion field."**

It's a strange phenomenon, given the extraordinary story of his life: A callow businessman, a young college dropout whose behavior was so divisive and undisciplined that he was exiled in 1987 from the company he founded, turns around and becomes the radically effective visionary leader of a company that became the most valuable enterprise on earth. Surely this can't be explained by a set of stereotypes that haven't changed for three decades.

Three years ago, fellow journalist Brent Schlender and I set out to try to take the long view of Jobs's career. I had worked behind the scenes as an editor on many Apple stories for both *Fast Company* and *Fortune*. Brent knew Steve well. For more than two decades, he reported on him for *The Wall Street Journal* and *Fortune*, interviewing him dozens of times. The two became close, albeit within the bounds of a journalist/source relationship; Steve regularly introduced Brent as his "friend." Brent believed that Jobs had changed more than any other businessman he had covered.

At first, Steve's closest colleagues were reluctant to speak with us. Our earliest interviews were with people who had parted ways with Jobs at some point, often under difficult circumstances. But even they felt he was misunderstood. Susan Barnes was the financial manager for the Mac team and CFO of NeXT Computer. She left NeXT because she believed Steve was squandering its capital. Steve totally cut her off, immediately, turning off her email and phone the day she resigned. Yet Barnes was deeply emotional when recalling Jobs; like others we spoke to, she still referred to him in the present tense. "You read the books, and you can't understand why anyone would ever work for this guy," she told us. "He is an amazing boss." When former Apple hardware chief Jon Rubinstein signed on with Palm Computing, Steve excoriated him on the phone, calling him a traitor to Apple. Yet, says Rubinstein, "Steve can be truly charming. No one ever manages to explain that. And he always cared deeply."

When members of Steve's inner circle finally began meeting with us, they further undermined the stereotype. Ed Catmull, the president of Pixar and perhaps the most important mentor in Steve's life, told us that Steve was constantly trying to improve in both his business decisions and his private behavior. "I look at Steve as someone who was actually always trying to change," says Catmull, who knew and worked with Steve for 25 years. "But he didn't express it in the same ways as others, and he didn't communicate with people about that. It didn't come across as him being personally introspective."

What emerged from these exclusive inter-

views—with Jony Ive and Tim Cook, Bill Gates and Bob Iger, and others, including Steve's widow, Laurene Powell Jobs—was a very different picture of Jobs. Steve was someone with a deep hunger for learning, who breathed in an education wherever he could find it, from his youthful pilgrimage to India to his key mentors and his longtime colleagues at NeXT, Pixar, and Apple. Powell Jobs goes so far as to call him a "learning machine." He learned from his many failures and relentlessly applied those lessons. This wasn't an obvious process—Steve always preferred to talk about the future rather than the past, so there are very few examples of him reflecting on his triumphs and missteps, or acknowledging a lesson learned. But like most of us, he tried to use what he learned to take better advantage of his strengths and temper his weaknesses. It was a lifelong effort, and, like most of us, he succeeded in some ways and failed in others.

Steve was *always* changing. Thinking of him this way casts him in a very different light from the more common view of him as a stubborn force of nature. It reframes what those of us fascinated by and engaged in business can draw from his example. If you search for "Steve Jobs" books on Amazon, you'll find that most carry such titles as *Steve Jobs: Ten Lessons in Leadership* or *The 66 Secrets of Steve Jobs: The Most Complete Step-by-Step Guide Ever Written on Becoming the Next Steve Jobs*. Book publishers clearly believe that readers are dying to mimic a magical "Steve Jobs Recipe for Success." (One possible exception: *Steve Jobs Returns With His Secrets*, which is, according to its jacket copy, a "spiritual interview with Steve Jobs, conducted just three months after his death.")

But there is no such recipe. "You should call your book *Don't Try This at Home*," Bill Gates told us. "That's the degree of difficulty of what Steve achieved." There are no truisms about design or simplicity or focus that will transform you or your company. Instead, there's a narrative of constant change. The evolution of the iPad did not resemble the flash creation of the Apple II. The way Steve assembled and managed the team at Apple in the 2000s had little in common with the way he rallied the band of pirates that built the Mac. What Steve left behind was the process of his life, not a series of dictats.

Thinking of his career and life as a fluid history changes what we can learn from Jobs. It changes his legacy and how we have to think about the future of Apple. What follows here are three unconventional assessments—and the ways in which they continue to drive the company Steve launched. (Our book, *Becoming Steve Jobs*, which is being published by Crown on March 24, offers more, and fuller, insights.) For





starters, we have to reconsider Steve's image as a solitary genius who on his own simply willed breakthrough products into existence.

### **THERE IS NO "I" IN "STEVE"**

Despite his reputation as a tyrannical micro-manager, Jobs maintained an excellent and relatively stable executive team during his second tenure at Apple. The more mature and confident he became, the more he surrounded himself with strong, opinionated executives who felt comfortable arguing with him. This was something he had learned during his exile from Apple.

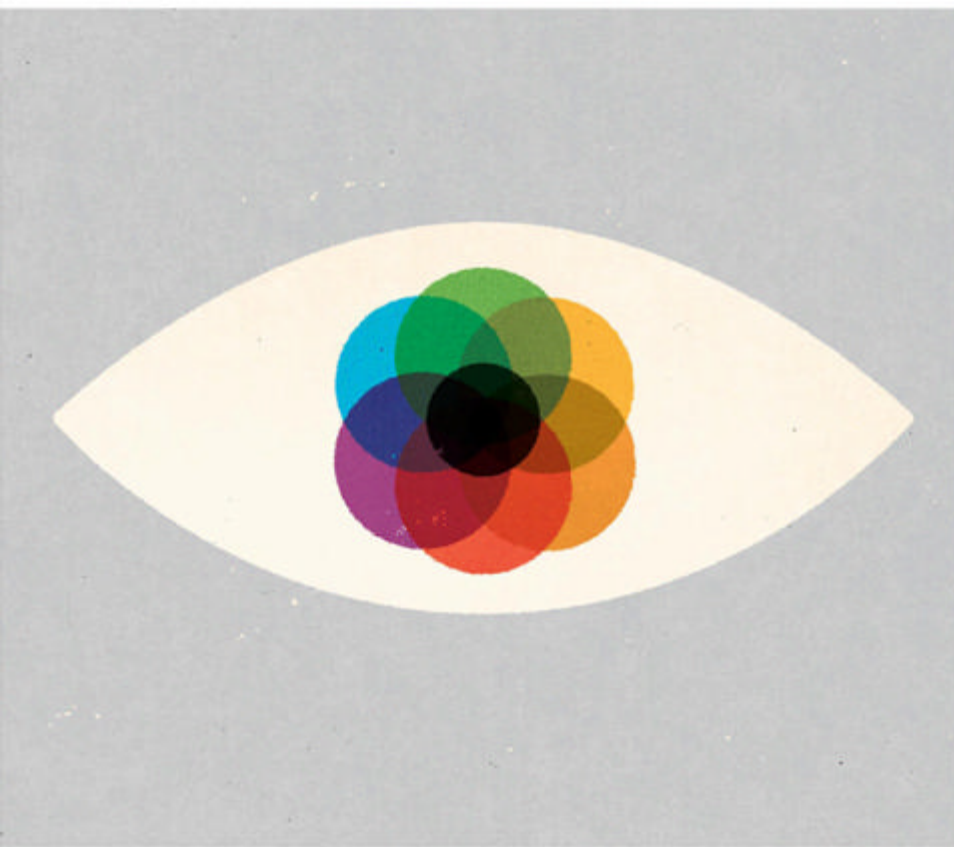
For much of its first decade, Apple was riven by internal conflicts, many of them initiated or exacerbated by Steve. After getting fired, however, he had the good luck to experience, at Pixar, a strong collaborative culture. It had been molded by Ed Catmull, a would-be animator who had developed into a great manager over the years. As he steered Pixar through the many difficult periods that preceded the creation of *Toy Story*, he nurtured an intelligent, respectful, and effective culture. Catmull was so firmly in charge of the place that he was able to keep Steve from getting too involved in the production, so

Apple's resurrection was a team effort, a fact that gets overlooked to the detriment of everyone.

Jobs watched from a distance as writers and animators worked their way through failed plotlines, poorly conceived characters, and interference from Disney's then-chief of animation, Jeffrey Katzenberg. After *Toy Story*, he got to see the team do it again, with *A Bug's Life*, and then again and again and again. "Watching our collaboration, where we were making ourselves better by working together, I think that fueled Steve," says John Lasseter, the director of *Toy Story* and *The Incredibles*, who now heads up Disney Animation and Pixar with Catmull. "That was one of the key changes when he went back to Apple. He was willing to be open to the talent of others, to be inspired by and challenged by that talent, but also to inspire them to do amazing things he knew he couldn't do himself."

In 1997, when Jobs returned to Apple, the person he kept around from the old Apple regime was Fred Anderson, the CFO. Most of the executive team were newcomers, including Rubinstein, software chief Avie Tevanian, and Tim





Cook, who joined in 1998 from Compaq. Jobs gave the group huge responsibilities and plenty of leeway. Anderson says Steve didn't interfere much in the financial operations of the company. "It wasn't his strength, and he knew it," he says. Former Apple retail chief Ron Johnson once told a group of Stanford MBA students, "Steve was the best delegator I ever met." Others, like Rubinstein, were indeed micromanaged but they could give as good as they had to take. "I fought with him for 16 years," says Rubinstein. "It was almost comedic. I remember one Christmas morning, we're on the phone screaming at each other and both of our significant others are in the background, saying, 'Come on, we have to get going, get off the damn phone.'" According to Barnes, Steve's best collaborators understood that "you had to listen past the yelling to understand what the yelling was about."

Each member of that early team performed heroic work. Anderson reengineered the company's finances; Cook slashed inventory and eventually built a reliable global supply chain that fed into an agile network of contract factories that could pound out tens of millions of de-

vices every year; Tevanian created the operating system that supports all of Apple's various software even today; Rubinstein oversaw the development of the electronic guts of Apple's Macs, iPods, and other products. Then there was a designer, by the name of Jony Ive, whose sleek but playful sensibility led to the iMac, which was the first step on the road to Apple's recovery. Says Bill Gates, "That is a really crack team that bonded with each other in toughness. I mean, you can point to every member of that team and say, 'Okay, he earned his pay, he earned his pay, he earned his pay.' There's no weakness in that team."

Jobs's executive team repeatedly steered him away from trouble and in the right direction. When Steve fell in love with digital movie editing in 1999, Apple made a nifty piece of software called iMovie. It was up to the members of the executive team to convince Steve that digital music was a better bet, and they did so at a hastily called meeting in early 2000 at the Garden Court Hotel in Palo Alto. Jobs quickly

conceded that they were right; iTunes was released 12 months later, and the iPod less than a year after that. When Jobs initially introduced the iPhone, he famously barred independent developers from creating software for the device. It was only after he listened to his team that he allowed the creation of the App Store, which secured the iPhone's place in history.

The resurrection of Apple was a team effort, a fact that gets overlooked to the detriment of everyone, including Steve. Managing a team that could support the long-term goals of a corporation was not one of his innate gifts. While he had rallied a talented group to create the Mac, many in that team were burned out by the process. Worse yet, the Mac was actually a feeble computer when first released in 1984. But Steve taught himself how to become a better manager, and when he returned to Apple, he was able to sustain a strong executive group for years and deliver first-rate products almost every time.

## INCH BY INCH, DAY BY DAY

Jobs is often heralded for the breakthrough products he delivered, ranging from the Apple II to the iPad. But the process of developing those breakthrough products changed completely over the course of his life. Jobs the revolutionary became Jobs the incrementalist.

In 1991, during an interview Brent conducted with Jobs and Gates at Steve's house in Palo Alto (they'd do only one more joint interview, many years later), Gates argued that incrementalism was exactly what the computer industry needed. Thinking about his corporate customers, he said, "All I want is a car that will run on the current streets. I'm on this evolutionary path." At that point, Jobs had a different goal. He loved transformative moments like the Apple II and the Mac, and that's what he had hoped to deliver with the NeXT Computer. "The real trick is to balance that incremental

**"You read the books," says Barnes, "and you can't understand why anyone would ever work for this guy."**

improvement with some big steps," he said. "The standard bearer needs a kick in the ass every once in a while."

By the time he returned to Apple, just six years later, Steve had moderated his approach. He applied the incremental approach he'd seen work so well at Pixar for Lasseter and Catmull. After selling NeXT to Apple in December 1996,



I diagnose and evaluate. My patients and my practice.  
I create invoices and sync appointments from anywhere.  
I keep my feet firmly planted in the mud.  
Even as I manage it all from the cloud.

I run on QuickBooks®. That's how I **OWN IT.**





Steve spent months studying the massive challenges facing the Cupertino company. At first, he didn't even know whether he wanted to return to Apple. By the time he made the decision, in September 1997, to come back full-time as CEO, he understood the depth of Apple's problems: massive inventory, an uninspired workforce, a woebegone share price, a meaningless market share. No single product could possibly revive the company. So he moved slowly, step by step. He launched an ad campaign, "Think Different," whose primary purpose was to reclaim the spirit of Apple for the company's employees. He continued the layoffs and cost-cutting that Fred Anderson had set in motion, finding the A players, as he put it, while sussing out and firing the C team. He introduced a product, the iMac, that was more a trick of design than engineering. It was just enough to get people chattering positively about Apple again. For the first time in his career, Steve was playing the hand he was dealt, rather than trying to solve everything with one brilliant stroke.

**"Can you imagine Steve as the CEO of Microsoft?" Gates cackled during an interview. "He would have been terrible."**

Even during the remarkable product run that would come to define his legacy, progress came incrementally. As Apple moved into the consumer electronics business, its metabolism for pumping out upgraded versions sped up. So did its ability to physically build and distribute products. For all the talk of design genius and ingenuity, what Apple accomplished in terms of sheer execution during the 2000s (and is still accomplishing, for example, with sales of 75 million iPhones in its most recent quarter) is at least as remarkable. Before the iPod, Apple would sell tens of thousands of a particular item, hundreds of thousands if something became a hit; the iPod exceeded those quantities by an order of magnitude. This wasn't simply a task of ramping up production at existing Apple facilities. It was about finding new suppliers and contract manufacturers; sourcing new kinds of metal and other materials; building, tracking, and constantly improving a new supply chain. It was about manufacturing millions of devices that consumers would embrace as prized jewels—and then retooling for a new version every 12 months.

The annual demands of the consumer electronics market made incrementalism a neces-

sity. Yet each incremental advance also offered the potential for a new breakthrough. "I've always thought there are a number of things that you have achieved at the end of a project," says Ive. "There's the object, the actual product itself. And then there's all that you learned. What you learned is as tangible as the product itself but much more valuable, because that's your future." Again and again, Apple took what it had learned from one product and applied it to the creation of something new and better. After creating iTunes, the team knew that most digital music players were pathetic, so they built the iPod. After working on the Rokr, a kludge of an iTunes-based music phone made by Motorola, the team understood better how to deal with carriers and what it would take to make the iPhone great. The obsessive work on the iPhone's touch-screen interface led to an understanding of how to make the iPad more intuitive than any prior incarnation of tablets.

Jobs did have a genius for synthesizing what Apple learned as its product line expanded. That's what fed the perfection of the iPod, iPhone, and iPad, each of which was a new version of something others had tried, and failed, to market successfully. Steve was the epitome of a technologist, in the sense that technology is, more often than not, a product of recombinant thinking. Most "new" technologies

are really new combinations of independent technologies that when put together create a new capability by virtue of their synergies. Apple's incremental product cycles were what gave Steve the raw materials to visualize the future. His visions didn't come from thin air.

## APPLE IS AN ATTITUDE

When Jobs died, a simple question was asked over and over again: How could Apple possibly thrive now that its charismatic leader had been replaced by someone then known only as an "operations guy" (Tim Cook)? It turns out that the simple question was the wrong one, on many levels.

In 2008, Steve hired Joel Podolny away from the Yale School of Management to create Apple University. Apple U. isn't anything like Pixar University, where animators can learn accounting and accountants can take drawing classes. Apple U. is designed to embed the *why* of Steve's thinking into the company he left behind. It is an attempt to codify a set of corporate decision-making values. The classes are case studies, both of successes and failures. These aren't sessions in how to be like Steve. Jobs *didn't* want to leave behind a bunch of executives who

would try desperately to learn how to be like him. He *did* want to hand the company to a group of people who would apply the same rigorous decision-making process that he applied during his last 15 years at Apple. He wanted a company that would continue to be collaborative, even without someone as charismatic at its center.

Cook is exactly what Jobs thought Apple would need going forward. Apple now sells a cumulative experience that involves lots of moving parts. Its hardware, software, and network services all have to work together, with whatever movies or music or other content that users want to tap into. Cook is a master of taming complexity. He first demonstrated this skill when he managed Apple's switch to contract manufacturing and modernized the way the supply chain was managed. Frankly, Cook could successfully lead any number of complex companies, something no one would have ever said of Steve. ("Can you imagine Steve as the CEO of Microsoft?" Gates cackled during our long interview. "He would have been terrible.")

Instead, Cook is thriving at Apple, with the stock doubling during his tenure and the volume of units sold tripling. Like Steve, Cook is unsentimental about his executive team. Steve let Tevanian and Rubinstein depart when he thought it was time; Cook coolly dismissed software showman Scott Forstall. And like Steve, he is unafraid to strike out into new territory: When Steve envisioned the Apple Stores, he brought in a leader with no computing experience, Ron Johnson; Cook's choice as head of retail, Angela Ahrendts, the former CEO of Burberry, also has limited tech chops but has a firsthand understanding of fashion that Apple lacks. Cook has also made moves that Steve likely never would have, such as creating a corporate philanthropy plan or opening up his personal life, as Cook did when he announced last year that he is gay. He is proving to be a very forceful leader, and charismatic in his very own way.

It's extremely difficult to predict what Apple will look like in a few years. The company's recent growth has again and again been driven by a sideways move into industries that need its computing expertise, and there may still be many such opportunities. Wherever Cook and the core team take Apple, they will have to apply the real lessons of Steve Jobs, not the ones perpetuated by the stereotype of the brilliant enfant terrible. For now, Apple's leaders are rigorous, collaborative, and deeply open-minded. They will follow their noses and not look back. That is a big part of the real legacy they have inherited. 🍏

tetzeli@fastcompany.com

# HOW DO YOU LOWER BUSINESS COSTS WITHOUT LOWERING YOUR STANDARDS?



## ARIZONA KNOW HOW. RANKED A BEST PLACE FOR BUSINESS.

Move to the state that sets the standard. Driven by a pro-enterprise philosophy, Arizona offers high value at low costs, giving you the perfect environment to live and prosper. With corporate and individual tax rates among the lowest in the nation and streamlined regulation, no state works harder to grow business and shrink government. Arizona is also #1 for entrepreneurial activity and #2 for skilled workforce. Our exceptional quality of life comes with a cost of living well below the national average. Arizona – live, work and thrive without compromise.

Join us and find out why Arizona is the best place for your business at [azcommerce.com](http://azcommerce.com).







—  
Steve Jobs  
in 2005



---

# “Life is too short”

The untold story of Tim Cook’s friendship with Steve Jobs—and why Jobs wouldn’t let Cook try to save his life. An exclusive excerpt from the book *Becoming Steve Jobs*.

By Brent Schlender and Rick Tetzeli

**According to Apple CEO Tim Cook, he first learned about Steve’s need for a liver transplant in January 2009. By that time Steve wasn’t coming into the office at all, and Cook would visit him at home just about every day. He started to worry that things might finally be headed in a fatal direction. “It was terrible going over there day after day and talking with him, because you could see him slipping,” says Cook. Steve was starting to look alarmingly frail. He developed ascites—an accumulation of fluid in the peritoneal cavity, which caused his belly to protrude in a ghastly fashion—and he just lay in bed all day, gaunt and tired and irritable.**

**He was on the list of people in California who were awaiting a liver transplant. This isn’t a list that can be gamed. In fact, Steve’s**



chances of getting a donor were not good at all.

One afternoon, Cook left the house feeling so upset that he had his own blood tested. He found out that he, like Steve, had a rare blood type, and guessed that it might be the same. He started doing research, and learned that it is possible to transfer a portion of a living person's liver to someone in need of a transplant. About 6,000 living-donor transplants are performed every year in the United States, and the rate of success for both donor and recipient is high. The liver is a regenerative organ. The portion transplanted into the recipient will grow to a functional size, and the portion of the liver that the donor gives up will also grow back.

Cook decided to undergo a battery of tests that determine if someone is healthy enough to be a living donor. "I thought he was going to die," Cook explains. He went to a hospital far from the Bay Area, since he didn't want to be recognized. The day after he returned from the trip, he went to visit Steve. Sitting alone with him in the bedroom of the Palo Alto house, Tim began to offer his liver to Steve. "I really wanted him to do it," he remembers. "He cut me off at

**"He wasn't a saint," says Cook. "But it's emphatically untrue that he wasn't a great human being."**

the legs, almost before the words were out of my mouth. 'No,' he said. 'I'll never let you do that. I'll never do that!'

"Somebody that's selfish," Cook continues, "doesn't reply like that. I mean, here's a guy, he's dying, he's very close to death because of his liver issue, and here's someone healthy offering a way out. I said, 'Steve, I'm perfectly healthy, I've been checked out. Here's the medical report. I can do this and I'm not putting myself at risk, I'll be fine.' And he doesn't think about it. It was not, 'Are you sure you want to do this?' It was not, 'I'll think about it.' It was not, 'Oh, the condition I'm in...' It was, 'No, I'm not doing that!' He kind of popped up in bed and said that. And this was during a time when things were just terrible. Steve only yelled at me four or five times during the 13 years I knew him, and this was one of them.

"This picture of him isn't understood," says Cook. "I thought the [Walter] Isaacson book did him a tremendous disservice. It was just a re-hash of a bunch of stuff that had already been written, and focused on small parts of his personality. You get the feeling that [Steve's] a greedy, selfish egomaniac. It didn't capture the person. The person I read about there is somebody I would never have wanted to work with over all this time. Life is too short.

"Steve cared," Cook continues. "He cared deeply about things. Yes, he was very passionate about things, and he wanted things to be perfect. And that was what was great about him. A lot of people mistook that passion for arrogance. He wasn't a saint. I'm not saying that. None of us are. But it's emphatically untrue that he wasn't a great human being, and that is totally not understood.

"The Steve that I met in early '98 was brash and confident and passionate and all of those things. But there was a soft side of him as well, and that soft side became a larger portion of him over the next 13 years. You'd see that show up in different ways. There were different employees and spouses here that had health issues,

and he would go out of his way to turn heaven and earth to make sure they had proper medical attention. He did that in a major way, not in a minor, 'Call me and get back to me if you need my help' kind of way.

"He had the courage to admit he was wrong, and to change, a quality which many people at that level, who have accomplished that much, lack. You don't

see many people at that level who will change directions even though they should. He wasn't beholden to anything except a set of core values. Anything else he could walk away from. He could do it faster than anyone I'd ever seen before. It was an absolute gift. He always changed. Steve had this ability to go through a learning curve quickly, more quickly than anybody I've known, about such a wide variety of things.

"The Steve I knew was the guy pestering me to have a social life, not because he was being a pest, but because he knew how important family was in his life, and he wanted it for me, too," says Cook, who came out as a gay man late in 2014. "One day he calls my mom—he doesn't even know my mom, she lives in Alabama. He said he was looking for me, but he knows how to find me! He talked to her about me. There are lots of these things where you saw the very soft or caring or feeling or whatever you want to call it side of

him. He had that gene. Someone who's viewing life only as a transactional relationship with people... doesn't do that."

**In his last years at Apple, Steve did everything he could to have people there treat him as if he were not sick.** "He was working his ass off till the end, in pain," remembers Eddy Cue, Apple's senior vice president of Internet software and services. "You could see it in the meetings; he was taking morphine and you could see he was in pain, but he was still interested." But he did make some adjustments upon his return, most of which were simply extensions of the shifts in priority he'd made after his 2004 operation. He focused on the parts of the ongoing business he cared about most—marketing, design, and the product introductions—and he started to take active steps to ensure that he would leave Apple in good shape after his death. This was a process that had started earlier—Cook says that Steve began thinking of succession and the post-Steve era of the company back in 2004—but everything accelerated now.

He spent some of his time working with Joel Podolny, a professor he had hired away from the Yale School of Management, to develop the curriculum for an executive education program he wanted to create called Apple University. Apple U. is designed as a place where future leaders of the company can review and dissect momentous decisions in the company's history. It's an attempt to reverse engineer, and then bottle, Steve's decision-making process, and to pass on his aesthetics and marketing methodologies to Apple's next generation. "Steve cared deeply about the *why*," says Cook. "The *why* of the decision. In the younger days I would see him just do something. But as the days went on he would spend more time with me and with other people explaining why he thought or did something, or why he looked at something in a certain way. This was why he came up with Apple U., so we could train and educate the next generation of leaders by teaching them all we had been through, and how we had made the terrible decisions we made and also how we made the really good ones."

Steve also focused on Apple's new headquarters, which are now being built on the grounds of the old Hewlett-Packard campus in another neighborhood of Cupertino. He was actively involved in the design, working with Norman Foster Architects. The building will reflect many of the same thoughts that went into the creation of



Adapted from *Becoming Steve Jobs: The Evolution of a Reckless Upstart into a Revolutionary Leader*. Copyright © 2015 by Brent Schlender and Rick Tetzeli. To be published by Crown Business, an imprint of Penguin Random House LLC, on March 24.





1



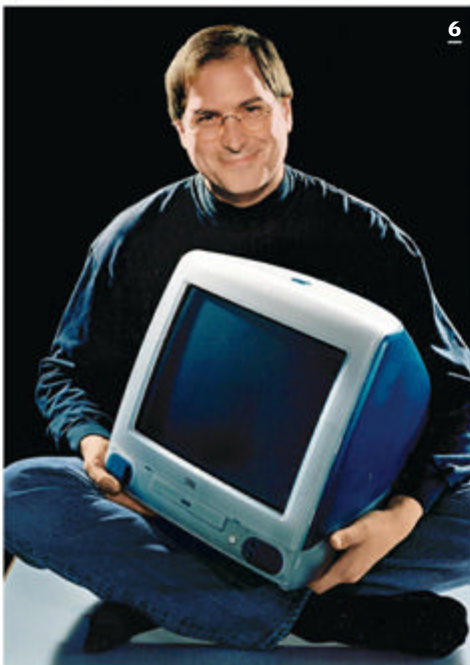
3



4



2



6

4. Steve with his first great collaborator, Steve Wozniak.  
5. Steve with his wife, Laurene Powell Jobs.  
6. The iMac started Apple's comeback.

1. Tech marketing wiz Regis McKenna was Steve's best early mentor.  
2. Gates and Jobs in May 1985, four months before Jobs left Apple.  
3. Jobs radiated confidence at NeXT Computer, which he founded in the fall of 1985. But he was never as comfortable there as he had been at Apple.



5



8



7

7. More than one of his tech industry competitors sneered at Jobs as "P.T. Barnum." But they envied his onstage presence.  
8. "It's the best place in the world to work," Jobs said of Pixar. To the left on the couch is *Toy Story* director John Lasseter. At right, Pixar president Ed Catmull.



**The succession plan**

Jobs worked for years with Apple's board to ensure that Cook's accession to CEO went as smoothly as possible.



Pixar's headquarters, albeit with an Apple spin. It will be one huge, circular structure, four stories tall and housing up to 13,000 employees. Its very design is intended to promote interaction among employees. Some people compare it to a space station. A common hallway stretches around the entire circle of each floor. A single café will seat 3,000 people. Some 80% of the grounds will be covered in shrubs, bushes, and trees, including a huge area in the middle of the circular structure. And the building will be its own technological marvel; its exterior won't have a single pane of flat or rectilinear glass. Instead, the walls of the building will consist of enormous panels of perfectly curved glass. The cafeteria's four-story glass doors will slide open when the weather is nice. "I think we have a shot," Steve told the Cupertino City Council, "at building the best office building in the world."

Steve's approach to the creation of the campus was driven by the same principles as always. What kind of design would make the new headquarters the ideal form of that concept? The closer you could get to that ideal, the better for Apple. He wanted to do everything he could to ensure that Apple would remain what he believed it had become—the most important, most vital, and most creative industrial company in the world. "Steve wanted people to love Apple," says Cook, "not just work for Apple, but really love Apple, and really understand at a very deep level what Apple was about, about the values of the company. He didn't write them on the walls and make posters out of them anymore, but he wanted people to understand them. He wanted people to work for a greater cause."

This belief in Apple as a special place—as a company as magical, perhaps, as an iPad—was something Steve shared with Cook and was certainly part of the reason he urged the board of directors to sign off on Cook as his successor. "This was a significant common thread we had," says Cook. "I really love Apple, and I do think Apple is here for a bigger reason. There are very few companies like that on the face of the earth anymore."

**On August 11, a Sunday, Steve called Tim Cook** and asked him to come over to the house. "He said, 'I want to talk to you about something,'" remembers Cook. "This was when he was home all the time, and I asked when, and he said, 'Now.' So I came right over. He told me he had decided that I should be CEO. I thought then that he thought he was going to live a lot longer when he said this, because we got into a whole level of discussion about what would it mean for me to be CEO with him as a chairman. I asked him, 'What do you really not want to do that you're doing?'"

"It was an interesting conversation," Cook says, with a wistful laugh. "He says, 'You make all the decisions.' I go, 'Wait. Let me ask you a question.' I tried to pick something that would incite him. So I said, 'You mean that if I review an ad and I like it, it should just run without your okay?' And he laughed and said, 'Well, I hope you'd at least ask me!' I asked him two or three times, 'Are you sure you want to do this?' because I saw him getting better at that point in time. I went over there often during the week, and sometimes on the weekends. Every time I saw him he seemed to be getting better. He felt that way as well. Unfortunately, it didn't work out that way."

Cook had been the obvious candidate for years. He had already run the company twice, during Steve's medical leaves in 2004 and 2009. Besides, Steve preferred an internal candidate. "If you believe that it's important to understand Apple's culture deeply, you wind up clicking to an internal candidate," explains Cook. "If I were

leaving this afternoon I'd recommend an inside candidate, because I don't think there's any way somebody could come in and understand the complexity of what we do and really get the culture in that deep way. And I think Steve knew that it also needed to be somebody that believed in the Beatles concept. [Jobs believed that the Fab Four brought out the best in one another—and moderated any individual's excesses.] Apple would not be served well to have a CEO who wanted to or felt like they needed to replace him precisely. I don't think there is such a person, but you could envision people trying. He knew that I would never be so dumb as to do that, or even feel that I needed to do that."

They had talked often about what the fate of Apple would be after Steve's death. As Cook puts it, "He didn't want us asking, 'What would Steve do?' He abhorred the way the Disney culture stagnated after Walt Disney's death, and he was determined for that not to happen at Apple."

Eight weeks after Steve told Cook he was making him CEO, things took a sudden turn for the worse. "I watched a movie with him the Friday before he passed away," Cook remembers. "We watched *Remember the Titans* [a sentimental football story about an underdog]. I was so surprised he wanted to watch that movie. I was like, 'Are you sure?' Steve was not interested in sports at all. And we watched and we talked about a number of things and I left thinking that he was pretty happy. And then all of a sudden things went to hell that weekend." 🍷

[schlender@fastcompany.com](mailto:schlender@fastcompany.com)  
[tetzeli@fastcompany.com](mailto:tetzeli@fastcompany.com)

# Stop the suffering of MSTs. ( *Manual Sales Tax Syndrome* )



Manual Sales Tax Syndrome is treatable.  
Talk to your accountant today.

Find out if **Avalara AvaTax™** is right for you:

► [www.avalara.com/fast](http://www.avalara.com/fast)

► 1-855-562-6875

**Avalara**  
Making sales tax less taxing



**WARNING:** Some side effects of AvaTax implementation are common and well documented. These include, but are not limited to: greater sense of ease and well-being, significantly reduced risk of penalties and interest in the event of an audit, greater focus on profit-making activities, more free time to enjoy the things you love – including family and friends. If you experience any of these very common side effects, contact your accountant immediately and inform them of your AvaTax discovery.





Tim Cook at  
an Apple  
event in 2014





# Tim Looks Ahead

In an exclusive interview, the Apple CEO discusses the Apple Watch, how Steve Jobs informs the company's future, and how Apple lives "outside the box."

**Interview by Brent Schlender and Rick Tetzeli**



**FAST COMPANY:**  
**How does Steve Jobs's legacy live on at Apple?**  
**TIM COOK:** Steve felt that most people live in a small box. They think they can't influence or change things a lot. I think he would probably call that a limited life. And more than anybody I've ever met, Steve never accepted that.

He got each of us [his top executives] to reject that philosophy. If you can do that, then you can change things. If you embrace that the things that you can do are limitless, you can put your ding in the universe. You can change the world.

That was the huge arc of his life, the common thread. That's what drove him to have big ideas. Through his actions, way more than any preaching, he embedded this nonacceptance of the status quo into the company.

Several other things are a consequence of that philosophy, starting with a maniacal focus to make the best products in the world. And in order to build the best products, you have to own the primary technologies. Steve felt that if Apple could do that—make great products and great tools for people—they in turn would do great things. He felt strongly that this would be his contribution to the world at large. We still very much believe that. That's still the core of this company.

There's this thing in technology, almost a disease, where the definition of success is making the most. How many clicks did you get, how many active users do you have, how many units did you sell? Everybody in technology seems to want big numbers. Steve never got carried away with that. He focused on making the best.

That took a change in my own thinking when I came to the company [Cook left Compaq to join Apple in 1998]. I had been in the Windows world before that, and that world was all about making the most. It still is.

When Apple looks at what categories to enter, we ask these kinds of questions: What are the primary technologies behind this? What do we bring? Can we make a significant contribution to society with this? If we can't, and if we can't own the key technologies, we don't do it. That philosophy comes directly from him and it still very much permeates the place. I hope that it always will.

**Did that philosophy play out in the decision to make the Apple Watch?** Very much so.

**Is that it, on your wrist?** Yes, it is. [Cook starts showing off different views on the watch.] See, my calendar is right here, there's the time, the day, the temperature. There's Apple's stock price. This is my activity level for today. You can see what it was yesterday, and now it's redrawing it for today. I haven't burned very many calories today so far.

You look at the watch, and the primary technologies are software and the UI [user interface]. You're working with a small screen, so you have to invent new ways for input. The inputs that work for a phone, a tablet, or a Mac don't work as well on a smaller screen. Most of

the companies who have done smartwatches haven't thought that through, so they're still using pinch-to-zoom and other gestures that we created for the iPhone.

Try to do those on a watch and you quickly find out they don't work. So out of that thinking come new ideas, like force touch. [On a small screen] you need another dimension of a user interface. So just press a little harder and you bring up another UI that has been hidden. This makes the screen seem larger, in some ways, than it really is.

These are lots of insights that are years in the making, the result of careful, deliberate . . . try, try, try . . . improve, improve, improve. Don't ship something before it's ready. Have the patience to get it right. And that is exactly what's happened to us with the watch. We are not the first.

We weren't first on the MP3 player; we weren't first on the tablet; we weren't first on the smart-phone. But we were arguably the first *modern* smartphone, and we will be the first modern smartwatch—the first one that matters.

**The iPod was introduced in 2001 with fairly low expectations. When Apple introduced the iPhone in 2007, expectations were sky-high. Where does the watch fit in that continuum?** With the iPod, the expectations for Apple itself at that time were very low. And then most people panned the iPod's price. Who wants this? Who will buy this? We heard all the usual stuff. On iPhone, we set an expectation. We said we'd like to get 1% of the market, 10 million phones for the first year. We put that flag in the sand, and we wound up exceeding it by a bit.

**"There's this thing in technology, where the definition of success is making the most. It's almost a disease."**

On the watch we haven't set a number. The watch needs the iPhone 5, 6, or 6 Plus to work, which creates a ceiling. But I think it's going to do well. I'm excited about it. I've been using it every day and I don't want to be without it.

**When the iPhone first came out, there weren't any outside apps. Eighteen months later, because Apple opened the phone up to app developers, it was a completely different value proposition. What kind of curve do you expect for the watch?** As you said, developers were key for the phone. They were key for iPad, too,

especially because they optimized apps for the tablet instead of just using a stretched-out smartphone app. And they'll be key to the watch, too. Absolutely.

This time, of course, we understand their importance from the beginning. We released an SDK [software development kit] in mid-November. So by the time we ship the watch in April, there will be plenty of third-party apps. You don't start with 700,000. You grow to that. But there will be enough apps to capture people's imaginations.

**Many people seem to have a hard time imagining the usefulness of the watch.** Yes, but people didn't realize they had to have an iPod, and they really didn't realize they had to have the iPhone. And the iPad was totally panned. Critics asked, "Why do you need this?" Honestly, I don't think anything revolutionary that we have done was predicted to be a hit when released. It was only in retrospect that people could see its value. Maybe this will be received the same way.

**You talked about the sense of limitlessness that Steve created. Part of that was the insistence on insane standards of excellence. He seemed to personally enforce that. Do you now play that same role, or is that kind of quality control more spread out?** The truth is that it has always been spread out. Steve couldn't touch everything in the company when he was here, and the company is now three times as large as it was in 2010. So do I touch everything? No, absolutely not. It's the sum of many people in the company. It's the culture that does that.

Steve was almost viewed from the exterior as the micromanager checking to make sure that every *i* was dotted, and every *t* was crossed, that every circuit was correct, that every color was exactly right. And yes, he made a lot of decisions. His capacity was unbelievable. But he was just one person—and he knew that.

It was his selection of people that helped propel the culture. You hear these stories of him walking down a hallway and going crazy over something he sees, and yeah, those things happened. But extending that story to imagine that he did everything at Apple is selling him way short. What he did more than anything was build a culture and pick a great team, that would then pick another great team, that would then pick another team, and so on.

He's not given credit as a teacher. But he's the best teacher I ever had by far. There was nothing traditional about him as a teacher. But he was the best. He was the absolute best.

Let me just make this one point. Last year, the company did \$200 billion worth of business. We're either the top smartphone maker in the world,

or one of the top ones. Would the company have been able to do that if he were the micromanager that he was made out to be? Obviously not.

Steve's greatest contribution and gift is the company and its culture. He cared deeply about that. He put in an enormous amount of time designing the concept for our new campus: That was a gift to the next generation. Apple University is another example of that. He wanted to use it to grow the next generation of leaders at Apple, and to make sure the lessons of the past weren't forgotten.

**Steve's focus on the benefits of small teams has paid off for Apple. But maintaining the discipline to stay effective, fleet, and non-bureaucratic would seem to get harder and harder as Apple gets bigger and bigger.** And the rewards are greater and greater to do it right. So you're right. It's harder, and you are fighting gravity. But if you don't feel like you're in a small box, you can do it.

We've turned up the volume on collaboration because it's so clear that in order for us to be incredibly successful we have to be the best collaborators in the world. The magic of Apple, from a product point of view, happens at this intersection of hardware, software, and services. It's that intersection. Without collaboration, you get a Windows product. There's a company that pumps out an operating system, another that does some hardware, and yet another that does something else. That's what's now happening in Android land. Put it all together and it doesn't score high on the user experience.

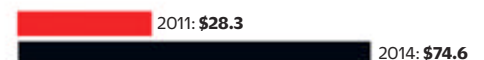
Steve recognized early on that being vertical gave us the power to produce great customer experience. For a long while, that was viewed as crazy logic. More and more people have opened their eyes to the fact that he was right, that you need all those things working together.

**Steve always said that the difference between Apple and other computing companies was that Apple made "the whole widget." At first, that meant making the hardware and software for a computer, or for a device like the iPod. But now the "widget" is bigger. It's become the whole "Apple experience," meaning the universe of iPhones, iPads, and Macs, and now the watch, trying to work seamlessly with cloud services, content from any number of musicians and filmmakers and video producers, and so on. It's one big mother of a widget. Is it really manageable, or are we beginning to see cracks, because there's just so much to maintain across so many different interfaces? Microsoft ran into the same problem when it tried to be all things to all people with its operating system. I think it's different. Part of**

## COOK'S APPLE: IT'S TWICE AS BIG AS STEVE'S

A comparison of Steve's last quarter as CEO, which ended September 30, 2011, with Tim's latest quarter, ending December 31, 2014.

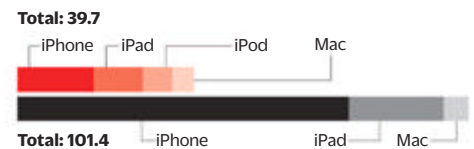
### Sales (in billions):



### Net income (in billions):

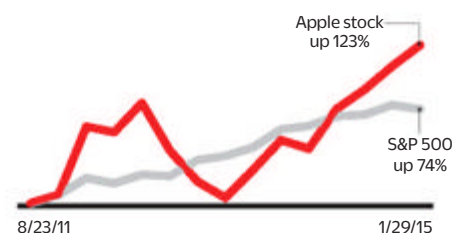


### Unit sales (in millions):



### Stock price since Steve's death:

(Quarterly growth)





the reason Microsoft ran into an issue was that they didn't want to walk away from legacy stuff.

Apple has always had the discipline to make the bold decision to walk away. We walked away from the floppy disk when that was popular with many users. Instead of doing things in the more traditional way of diversifying and minimizing risk, we took out the optical drive, which some people loved. We changed our connector, even though many people loved the 30-pin connector. Some of these things were not popular for quite a while. But you have to be willing to lose sight of the shore and go. We still do that.

So no, I don't accept your comparison to Microsoft. I think it's totally different. Yes, things are more complex. When you're doing a Mac, that's one thing. But if you do a phone, and you want to optimize so that you have the fewest dropped calls of anyone, and you're working with 300 or 400 carriers around the world, each with slightly different things in their network—yes, that's more complex.

It's more complex to do things like continuity. Now the customer wants to start an email on their iPhone and complete it on their iPad or Mac. They want a seamless experience across all of the products. When you're only doing a Mac, that seamless experience is a party of one. Now you've got a three-dimensional thing, and the cloud. So it is more complex. There's no doubt.

What we try to do is hide all of that complex-

of that. What I see is that we have to continually have the discipline to define the problem so that it can be done. If you try to engineer to the complexity, then it does become the impossible dream. But if you step back and think about the problem differently, think about what you're really trying to do, then I don't think it becomes an impossible task at all.

By and large, I think we're proving that. Look at the App Store, where we're doing things on an unparalleled scale—there are a million and a half apps on the store. Would anybody have guessed that a few years ago? We are still curating those apps. Our customers expect us to do that. If they buy an app, they expect it to do what it says it does.

**Are there any fundamental ways in which you are letting go of parts of Steve's legacy?** We change every day. We changed every day when he was here, and we've been changing every day since he's not been here. But the core, the values in the core remain the same as they were in '98, as they were in '05, as they were in '10. I don't think the values should change. But everything else can change.

Yes, there will be things where we say something and two years later we'll feel totally different. Actually, there may be things we say that we may feel totally different about in a week. We're okay with that. Actually, we think it's good that we have the courage to admit it.

**Steve would do that all the time.**

He definitely would do that all the time. I mean, Steve was the best flipper in the world. And it's because he didn't get married to any one position, one view. He was married to the philosophy, the values. The fact that we want to really change the world remains the same. This is the macro point. This is the reason we come to work every day.

**Are you looking forward to Apple's new campus? [The company is set to move into massive new headquarters in 2016.] Would you have created this kind of campus if you had been CEO when the decision was first made?** It's critical that Apple do everything it can to stay informal. And one of the ways that you stay informal is to be together. One of the ways that you ensure collaboration is to make sure people run into each other—not just at the meetings that are scheduled on your calendar, but all the serendipitous stuff that happens every day in the cafeteria and walking around.

We didn't predict our employee growth, so we haven't had a campus that houses everyone. We are spread out in hundreds of buildings, and

none of us like that; we hate it. Now we'll be able to work primarily at that one campus. So, yeah, I'm totally behind that.

**As the human scale of the company grows, as the generations churn and new people come in, how does the culture get transferred to new employees? Is there something that needs to be systematized?** I don't think of it as systematizing, but there are a number of things that we do, starting with employee orientation. Actually, it starts before that, in interviews. You're trying to pick people that fit into the culture of the company. You want a very diverse group with very diverse life experiences looking at every problem. But you also want people to buy into the philosophy, not just buy in, but to deeply believe in it.

Then there's employee orientation, which we do throughout the company all over the world. And then there's Apple U., which takes things that happened in the past and dissects them in a way that helps people understand how decisions were made, why they were made, how successes occurred, and how failures occurred. All of these things help.

Ultimately, though, it's on the company leaders to set the tone. Not only the CEO, but the leaders across the company. If you select them so carefully that they then hire the right people, it's a nice self-fulfilling prophecy.

**I noticed you still have Steve's nameplate up next to his old office. Yeah.**

**Why? And will you have anything like that over at the new place?** I haven't decided about what we'll do there. But I wanted to keep his office exactly like it was. I was in there with Laurene [Powell Jobs, Steve's wife] the other day because there are still drawings on the board from the kids. I took Eve [Steve's daughter] in there over the summer and she saw some things that she had drawn on his light board years earlier.

In the beginning I really didn't personally want to go in there. It was just too much. Now I get a lot more appreciation out of going in there, even though I don't go in very often.

What we'll do over time, I don't know. I didn't want to move in there. I think he's an irreplaceable person and so it didn't feel right... for anything to go on in that office. So his computer is still in there as it was, his desk is still in there as it was, he's got a bunch of books in there. Laurene took some things to the house.

I don't know. His name should still be on the door. That's just the way it should be. That's what felt right to me. ☺

[schlender@fastcompany.com](mailto:schlender@fastcompany.com)  
[tetzeli@fastcompany.com](mailto:tetzeli@fastcompany.com)

**“Apple has always had the discipline to make the bold decision to walk away, to lose sight of the shore and go.”**

ity from the user. We hide the fact that doing this is really tough, hard engineering so that the user can go about their day and use our tools the way they would want and not have to worry about it. Sometimes we're not perfect with that. That's the crack that you're talking about. Sometimes we're not. But that, too, we will fix.

In my mind, there is nothing that's incorrect about our model. It's not that it's not doable, it's that we're human sometimes, and we make an error. I don't have a goal of becoming inhuman, but I do have a goal of not having any errors. We've made errors in the past, and we'll never be perfect. Fortunately, we have the courage to admit it and correct it.

**But, still, you are fighting gravity. You don't fear that this will become too big a job?** No, because we don't live in the box. We are outside

## INTUIT QUICKBOOKS®

**SMALL BUSINESSES OWN IT EVERY DAY IN A TON OF DIFFERENT WAYS AND INTUIT QUICKBOOKS CAN HELP**

Track expenses, generate reports, create custom invoices, and get paid faster, all with QuickBooks on any device, from anywhere.

Learn about all the ways QuickBooks can help you OWN IT at [quickbooks.com](http://quickbooks.com)



## GEICO

**GET CUSTOM-TAILORED INSURANCE COVERAGE FOR YOUR BUSINESS!**

GEICO can help you protect your company's financial assets, property, and vehicles with a variety of affordable commercial insurance options to fit the unique needs of your business.

Call 1-800-606-4139 or go to [geico.com/commercial](http://geico.com/commercial) today

Limitations apply. See geico.com for more details. GEICO & affiliates. Washington, DC 20076 © 2015 GEICO



**GEICO**  
for your business

# ActFAST

► FEATURED EVENTS,  
PROMOTIONS, AND PRODUCTS

## FASTCO STUDIOS

**FAST COMPANY'S ALL VIDEO DIGITAL DESITINATION**

Surprising stories, emotional journeys, and entertaining detours in the world of innovation told through video and film.

Visit [fastcompany.com/videos](http://fastcompany.com/videos)



## AVALARA

**SALES TAX IS HARD. AVALARA MAKES IT EASY.**

Avalara helps businesses achieve compliance with sales tax, excise tax, and other transactional tax requirements. Our platform manages complicated and burdensome tax compliance obligations imposed by state, local, and other taxing authorities in the United States and internationally.

[www.avalara.com/fast](http://www.avalara.com/fast)

**Avalara**

Making sales tax less taxing





GapQuest





GAP INC.'S  
NEW CEO  
KNOWS THAT  
THE FIRST  
STEP TOWARD  
REGAINING  
ITS ICONIC  
REPUTATION—  
AND MARKET  
SHARE—IS  
MAKING  
CLOTHES  
THAT PEOPLE  
ACTUALLY  
WANT  
TO WEAR.

**By Danielle Sacks**  
Photographs  
by Mark Mahaney





■  
DEFEAT, IT TURNS OUT, SMELLS A LOT LIKE CINNAMON ROLLS. ON A SATURDAY AFTERNOON IN JANUARY, THE CHEAP-CALORIED AROMA OF CINNABON PERMEATES NEW JERSEY'S TWO-STORY LIVINGSTON MALL, DISTRACTING VISITORS FROM AN INCREASINGLY VISIBLE REALITY.

The 43-year-old shopping center's fleet of modest stores—so familiar and accessible to customers for more than a generation—are turning into a liability.

Between a lackluster Sears on one end of the mall and a Macy's on the other, four naked mannequins and an empty metal rolling hanger are all that remain in the fresh graveyard of Wet Seal, the teen retailer that recently announced it's shuttering two-thirds of its stores. "One day they're remodeling, the next day it's closed," mutters the teenager working the cell-phone repair cart outside the store. Across the way, at an Aeropostale kids' shop, an EVERYTHING MUST GO! sign hangs in the



Art Peck, a nine-year Gap Inc. veteran, looks forward to being "out there in the messy mosh pit of change."

Four miles away, at the Mall at Short Hills, tony brands like Burberry, Calypso St. Barth, and Chanel draw shoppers from all over the state. "Malls are the story of the haves and have-nots," says Busch, who believes that destinations like Short Hills will continue to thrive. E-commerce has devoured lower-end malls, but "customers still want to try on, touch, and feel high-end apparel," he adds. "As goes Middle America, so goes the middle-American mall," says Wendy Liebmann, CEO of WSL Strategic Retail. The result is the latest wave of retail Darwinism: the classic American shopping emporiums that put downtown Main Streets out of business in the 1960s are now themselves on their way to extinction.

All of this has been weighing on Art Peck, who has just become CEO of the company arguably most synonymous with malls: Gap Inc., which also owns Old Navy and Banana Republic. "Gap was founded in 1969, when malls were being built, real estate was coming available, and consumer shopping patterns were being trained," says Peck, a slim 59-year-old, who was dressed in a hooded black leather Rag & Bone bomber jacket when I first met him in December, two months before he started his new job. "Gap essentially rode the wave of that initial change in retail, that mall building boom that took place for 30 or 40 years." The brand enjoyed a 15-year reign over classically cool, affordable American style, but it has spent the past decade-plus struggling with an identity crisis while new retailers have colonized much of its domain. The iconic brand slept through the fast-fashion revolution fueled by the likes of European labels H&M and Zara; got lost amid competitors such as Uniqlo and Target, who

offered basics and denim at higher and lower price points; overexpanded; and became too ubiquitous for today's niche-minded fashion crowd. "We used to talk about the 'Gapification of America,' that notion of one size fits all," says WSL's

Liebmann. "That's just not a proposition relevant to America now." Between 2006 and 2010, sales dropped every year at Gap's North American stores; since 2013, store sales have continued to suffer.

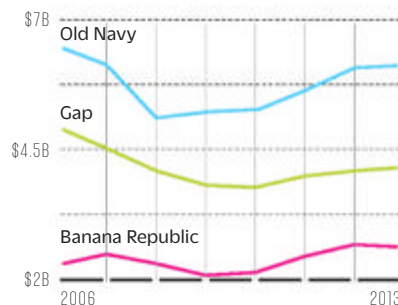
Into this reality rides a former consultant turned digital believer with perhaps an impossible task: to make the once-iconic business relevant again. It is a task echoed throughout our economy—at brands like Yahoo and MTV, JCPenney, and Buick. Peck has spent the past nine years moving up through a variety of roles at the \$16 billion apparel conglomerate, which includes newcomers Athleta and Intermix. He is convinced that the company's future will depend not just on delivering better product but on radical experimentation. Gap thrived in the heyday of the mall—what Peck calls Retail 1.0—and floundered in the fast-fashion wave he calls Retail 2.0. Gap's hope, he explains, is to leapfrog ahead to win in the Retail 3.0 era: a mobile-fueled future in which

window. "We're closing Tuesday," explains the girl at the register, sipping a smoothie while assembling a 200-piece puzzle. "They're going online." Next door is a large, empty storefront, freshly vacated by a Toys "R" Us, while at the other end of the corridor, teen retailer Delia's, which recently announced liquidation, flaunts its own GOING OUT OF BUSINESS sign. "Once malls like the Livingston Mall lose competitive edge in a market, they can't compete," says D.J. Busch, mall analyst for Green Street Advisors, who predicts that 15% of lower- to mid-tier malls will disappear over the next decade. "Once you lose a good tenant, others will follow. Retail works that way—you follow the mob."

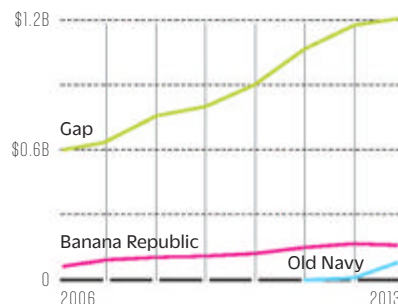
## Distressed Denim?

CEO ART PECK INHERITS A COMPANY WITH STAGNATING STORE SALES—BUT BRIGHT DIGITAL PROSPECTS.

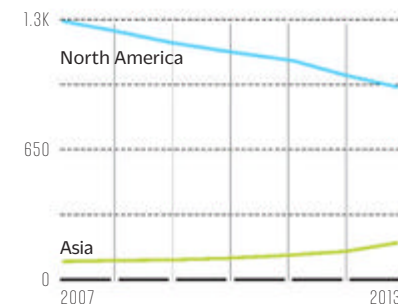
### Net sales (North America)



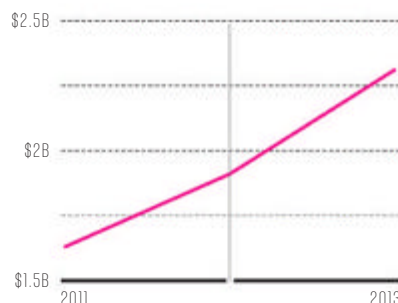
### Net sales (Asia)



### Number of Gap stores



### Online sales (Gap Inc.)





physical stores will have an entirely new role. “We’ve been doing business the same way for 40 years, and there are very few 40-year-old business models that are successful forever,” Peck says. “Periods of disruption are periods of disproportionate opportunity,” he continues, laying the stakes. “More money is made during disruptive times—but is also lost—than is made during times of stability.” So what will that store of tomorrow deliver? And how soon before Gap rolls it out near you? Peck props his foot on his knee, gripping his lower leg with both hands like an oar. Predicting what form that store will take is the puzzle he’s trying to solve.

**If there’s one item of clothing that both** inspires and haunts Peck, it’s colored denim. He refers to the Colored Denim Period often in conversation, as if drifting back to memories of

an old summer fling: bold punches of greens, yellows, fuchsias, and aquas in the form of skinny, cropped, and broken-in jeans and khakis. It represented a rare moment in the company’s recent history (February 2012, to be exact) when the Gap brand was ahead of a fashion trend yet true to its heritage—casual, American, optimistic. Peck was running the North American arm of the Gap at the time and he gambled big, letting stores run dry on other inventory in advance. “Then we flowed the product,” he recalls. “I kept looking at my head merchant, asking, ‘Where are the numbers?’ Day one, day two, day three, four, six, seven—then, *boom*, it hit, and the comps went through the roof.” It was the brand’s best-selling line in years.

Peck’s office, at Gap HQ in San Francisco, looks more like a designer’s den than an executive suite, evoking the confidence and whimsy of the Colored

Denim Period. There’s no desk. A series of hacked Barbie dolls (a “family art project,” he explains, referring to his wife and four kids—two of whom work for Old Navy) line the windowsill; a decoupage dress form topped by a soldier’s Vietnam War helmet (“worn by a guy who apparently, in the boredom of fighting a war, had a hot glue gun and glued pistol cartridges to it”) stands in the corner; and a tattered mustard-yellow ROUGH ROAD sign leans in the corner (“it’s irony”). The walls of the conference room next door are check-boarded with another art project: 15 mini-David Hockney replicas, painted by Peck and his tech leadership team as a creative exercise. “There was a fair amount of wine flowing,” he admits.

Although there’s retail in Peck’s blood—a distant relative helped found Woolworth’s back in 1879, and his grandfather helped grow it globally—he didn’t find his way into the field

## A Tight Spot

### Gap

**Challenge:** Stuck in the middle, it’s been losing relevance as competition chips away from all sides.

**Strategy:** Boost design, materials, and production cycle to reestablish itself as an iconic brand.

### Old Navy

**Challenge:** The “basics” brand has gone too basic, veering toward generic, cheap clothing.

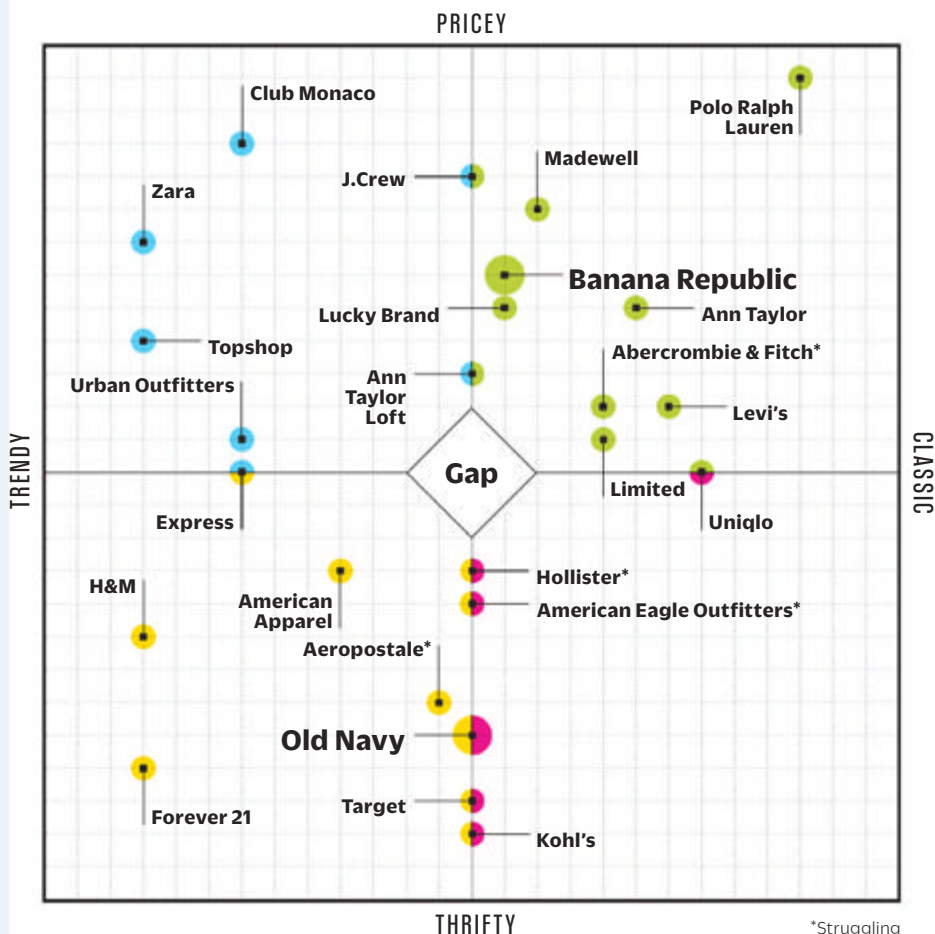
**Strategy:** Make trends accessible at a low price point (already showing signs of progress).

### Banana Republic

**Challenge:** Has developed a staid and serious “dressing for work” reputation.

**Strategy:** Give J.Crew vet Marissa Webb freedom to steer the brand into more fashion-forward territory; her first line debuted in March.

GAP, FOUNDED IN 1969, PIONEERED THE IDEA OF CASUAL, AFFORDABLE COOL. TODAY, COMPETITORS ENCROACH FROM EVERY DIRECTION—AND THESE ARE JUST THE ONES WITH ACTUAL, PHYSICAL STORES.





■  
New Intermix president Jyothi Rao (left) and Banana Republic creative director Marissa Webb are tasked with channeling trend intelligence to other Gap brands.

until his late forties. After graduating from Harvard Business School, he spent 20 years at the Boston Consulting Group, advising executives at large industrial, technology, and entertainment companies and working for the likes of Universal Music when digital file-sharing services such as Napster started to emerge. “I can remember executives arguing that a customer will never not want their music in physical form. There was a lot of denial,” Peck recalls. “I’ve seen this again and again—by the time change has happened around a company, they panic and reflexively react to it. It’s oftentimes too late. To be out there

**“HE CALLS IT AS HE SEES IT,” WEBB SAYS OF PECK. “HE’LL SEND ME A TEXT AND I’LL SEND HIM A TEXT BACK. IT’S VERY FAST, VERY SCRAPPY.”**

in the messy mosh pit of change with unclear direction and unclear implications, that’s much more important.”

Peck jumped into the mosh pit in 2005, after Gap’s then-CEO Paul Pressler hired BCG to help identify growth opportunities—and ended up bringing Peck in-house to lead the company’s strategy and corporate development. “The most important things in my life have been unexpected, unplanned forks in the road,” says Peck (who met his wife on a blind date). He worked with Bob Fisher, son of Gap founder Don Fisher and then the non-executive chairman of the board, to cut costs—which included shutting down experiments such as Forth & Towne, a failed attempt to grab the over-35 set. Peck also suggested that the company accelerate international growth by franchising to local operators instead of relying on wholly owned stores. “We would

surely not be as global as we are today were it not for Art,” says Eric Severson, Gap’s SVP of talent, who has worked closely with Peck for years.

Peck has spent his time at Gap steadily hopping from one area to another, always with good results. He’s overseen operations and global logistics, led the acquisitions of activewear brand Athleta and upscale women’s fashion retailer Intermix, and ran Gap’s profitable outlet business (his first experience managing a P&L).

In 2011, the company’s next CEO, Glenn Murphy, appointed Peck president of Gap North America, which had suffered years of falling sales. “What most leaders do is spend all this time analyzing, diagnosing, and then building a huge plan that you unveil,” says Severson. “Art is much more firmly rooted in get in, and start doing.” Peck had one priority: fix the product. Much of the problem, he concluded, stemmed (Continued on page 104)



# DROPBOX VS. THE WORLD

There's a new technology war: Who will control your digital data? Drew Houston, Dropbox's 32-year-old CEO, thinks he can thwart the universe's most formidable tech titans.

**By J.J. McCorvey**

Illustration by Lo Siento







# "WHAT'S PREVENTING GOOGLE FROM DISRUPTING YOUR SUCCESS?"



Drew Houston's company may be valued at \$10 billion, but here in GSB Faculty West 104 on the Stanford University campus he's being grilled like a newbie on *Shark Tank*. The three dozen students in this class, called Disruptive Innovation, are relentless, even though he's been invited as a guest. Another pupil brings up what he believes is another giant threat: "Amazon [Web Services] was this huge competitive advantage for you when you were first starting," he says. "But now they have this competing Cloud Drive."

Houston is the epitome of Northern California cool. With his full beard, hair sticking straight up, and a silver hoop piercing the middle of his left earlobe, he leans back in his chair and placidly fields the queries, no matter how snippy. "Pretty much any big company, for any sufficient market, is gonna have some chips on the table," Houston says, explaining why he thinks Amazon and Google now have services that compete with Dropbox. "That doesn't mean it's gonna work."

Houston, 32, finds himself in the dead center of one of the tech industry's most fearsome turf wars. Dropbox has the distinction of being the only cloud service—and perhaps the only startup—ever to compete simultaneously against Apple (\$748 billion market cap), Google (\$369 billion), Microsoft (\$357 billion), Amazon (\$173 billion), and Tencent (\$160 billion).

The stakes are clear: Whomever controls your stuff may control the digital future. Over the last few years, storing and sharing data in the cloud has become an almost ubiquitous habit. Conventional wisdom had been that cloud-based storage was a commodity business, a digital file cabinet. But a better metaphor for the potential of cloud-based storage might be a portable office. "Your whole computing environment ought to follow you around," explains Houston. "Your financial records, your health information, your music playlist . . . anything that's 'mine.' It's a pretty long list." Better yet, you should eventually be able to interact seamlessly with everything in that portable office: work on documents with colleagues, send email, chronicle inventory. About storage, he says, "that's kind of the easy part. The more interesting part is, What can you do with it?"



**Dropbox CEO  
Houston feels your  
tech pain—and  
wants to fix it.**



Unlike his amply financed competitors, which were all founded during the desktop computing era, Houston has been embedded in the cloud for eight years, ever since launching Dropbox in 2007. He's not building smartphones, holographic lenses, or self-driving cars; his sole focus is solving the annoyances created by the invisible networked quilt that is modern computing. The cloud makes it possible to work from anywhere, anytime, but keeping everything safe and in sync is a massive software challenge. Our economy's workforce is increasingly independent, mobile, and flexible, and the line between work and home continues to blur. The traditional design of business computing was not built for how we work today. "[Employees] are basically saying, 'I need to get my job done,'" says Maureen Fleming, a VP at the analyst firm IDC. Those employees will gravitate to whichever service makes it easiest for them to do so.

No one yet dominates the new global network, but Dropbox just may be the most adroit cloud company in the world, the one that has solved more problems for its users than any other. That's why Dropbox is not just surviving its onslaught of competition, but is thriving. The company says it has more than 300 million users and 4 million companies using the service. According to IDC, Dropbox owns 27% of the consumer market for file-syncing and sharing documents, more than Microsoft and Apple. It is also the most popular file-syncing and sharing service used by businesses. More than 100,000 organizations, including Hyatt, Under Armour, and Spotify, pay \$15 per employee per

month for Dropbox for Business, while a tiny fraction of its consumers pay \$99 per year for the Pro service. Our conservative estimate of all those paying customers (assuming five employees in each business and 1% of consumers) puts Dropbox's revenue at approximately \$450 million annually, which is why the company is rumored to be going public before too long.

A potential IPO is just one of the many reasons 2015 is a critical year for Dropbox. Houston is already rolling out new features that enhance Dropbox's utility, letting users do things such as save any file within an iPhone app to Dropbox with two taps and edit Office documents without having to save them to a computer. These new additions will be a test: of Houston's bet that Dropbox is a business and not merely a feature; of Dropbox's ability to stay rigorously focused on solving customer problems at a time when it is growing madly; and of Houston's ability to fend off his rivals' cloud initiatives.

Toward the end of the Stanford class, another future disrupter named Jordan bluntly asks Houston, "What made you the right person to start Dropbox in the first place?" In the jargon of Silicon Valley, he's asking about what's called founder-market fit. Why, Jordan wants to know, does Houston have more than a puncher's chance against Amazon, Google, Microsoft, and the rest?

**The first time I interviewed Houston, roughly four years ago, he was a young, happy-go-lucky startup founder,** recounting with charm and ebullience the story of the day Dropbox received its first major funding from Sequoia Capital, and how he had clicked "refresh" on his computer repeatedly so he could watch his bank account rise from \$60 to \$1 million. This time around he's more guarded; some white hues are creeping up in his dark hair. We talk in a conference room decorated as if it's situated in the cloud—cotton-ball-like material on two walls, sky blue chairs—at Dropbox's headquarters in San Francisco's China Basin, where he presides over 1,000 employees (double last year's head count). On a dry-erase board, a chart compares the storage size and prices offered by Amazon, Google, and Microsoft. He checks his phone incessantly.

It isn't until we start talking product that Houston's mood ticks up. Excited to learn that I am a Dropbox user, he wants to ensure that I also convert from the default Apple photo-management tools to Dropbox's version, called Carousel. "Here, I'll show you," he says, and he practically leaps toward my side of the table to demo how it creates a timeline of backed-up photos, and can simply delete duplicates from a smartphone. As he starts flicking all the way back to 2001 to a picture of himself with his MIT Phi Delta Theta brothers, I'm reminded of the commencement speech he gave at his alma mater's 2013 graduation ceremony, in which he professed his admiration for people who were "obsessed" with solving a problem, likening them to a dog chasing a tennis ball. "Every time we find ways to save you 15 minutes to an hour, times hundreds of millions of people," he tells me, "it's, like, we save lifetimes of pain, every day."

Houston's drive to mitigate eons of technology-inspired angst has been the energy that's fueled Dropbox since its inception. When he was just 23, Houston took a four-hour bus ride from Boston to New York, planning to use the time to work on a project. But he was stymied, because he forgot to bring the thumb-size hard drive that held his files. Deciding he'd been inconvenienced by this sort of thing for the last time, he wrote the very first lines of Dropbox code during the ride.

"A lot of the startups we fund, they're still trying to figure out what to build," says Paul Graham, cofounder of the startup accelerator Y Combinator. "Drew knew." In Houston's application for YC's summer 2007 session, he laid out his vision: "In the future, you won't have to move your data around manually." He explained that he'd created something that would make sure we'd have the same version of every file on all our computers. "It's a very simple thing to describe," says Graham, "but an unbelievably hard thing to execute."

From the start, Dropbox was almost magically simple: Install Dropbox's folder on your desktop, and by simply dragging files into it you could suddenly access them from anywhere. The simplicity inspired an almost cultish following. Whenever he or cofounder and CTO Arash Ferdowsi would overhear someone talking about Dropbox and they'd ask that person about it, he or she would inevitably say, "I love Dropbox!" or "Dropbox changed my life!" Houston recalls. "We'd look at each other like, Well... great! Cloud synchronization, sweet!"
















Suddenly people had an easy way to share documents, including the kind of massive files that would trip up everything from Yahoo Mail to corporate Exchange accounts. That simplicity has driven Dropbox ever since. It is now integrated with more than 300,000 companies and services. Dropbox comes preinstalled on laptops, tablets, and Android smartphones made by Dell, HP, Sony, and Samsung. It's a one-click service on Slack, Shutterstock, and Vimeo. While it doesn't come preinstalled on Apple products, Apple has had such a struggle with its own cloud services that millions of its customers rely on Dropbox.

This ubiquity helped Dropbox make a deal last December with perhaps its most significant competitor, Microsoft, whose CEO, Satya Nadella, is pursuing a "mobile first, cloud first" vision. Subscribers to Office 365, the cloud-based version of the world's most popular productivity suite, can now open



**"EVERY DAY YOU HAVE AFTERNOONS BEING RUINED BECAUSE YOU OPEN UP A SPREADSHEET AND SOMEONE 30 FEET AWAY HAS BEEN EDITING THE SAME THING."**

# CLOUD ATLAS HOW THE TECH GIANTS COMPETING TO CONTROL YOUR STUFF COMPARE

	AMAZON	APPLE	DROPBOX	GOOGLE	MICROSOFT	TENCENT
<b>Product (launch)</b>	WorkDocs (2014)	iCloud (2011)	Dropbox (2008)	Drive (2012)	OneDrive (2014)	Weiyun (2012)
<b>Free storage</b>	200 GB (30-day trial)	5 GB	2 GB	15 GB	15 GB	Up to 10,000 GB
<b>What you can store</b>	108,000 self-published romance novels from the Kindle Store 	Four copies of the <b>Cameron Diaz/Jason Segel</b> flop <i>Sex Tape</i> 	Two copies of all 226 songs recorded by Dropbox investors <b>Bono and the Edge</b> 	The 3,450 most-viewed YouTube clips (No. 1: <b>Psy's</b> "Gangnam Style") 	40,000 PowerPoint presentations 	<b>Kim Kardashian's</b> selfie library, or approximately <b>20 million</b> pictures 
<b>Price per month for one terabyte</b>	\$29	\$19.99	\$9.99 (Pro); \$15 for unlimited (Business)	\$9.99	Free with a \$6.99/mo. Office 365 subscription	Free
<b>Users</b>	*	300 million-plus	300 million-plus	240 million	250 million-plus	300 million-plus
<b>Dropbox's one degree of separation</b>	Dropbox is an Amazon Web Services customer	Dropbox turned down an acquisition offer from Steve Jobs in 2009	N/A 	Google Drive users can sync folders with Dropbox in real time	Partnered with Dropbox to let Office 365 users edit and view Dropbox files	N/A 
<b>Where your stuff lives</b>	Ashburn, Virginia; Boardman, Oregon, aka <b>ON THE RIVER, ON THE WAY;</b> Dublin; and Sydney 	Maiden, North Carolina, aka <b>A TOWN WITH A FUTURE</b> 	Presumably Ashburn, Virginia; Boardman, Oregon; Dublin; and <b>Sydney</b>	Council Bluffs, Iowa, aka <b>IOWA'S SPIRIT;</b> and Mayes County, Oklahoma, among others	Quincy, Washington, aka <b>WHERE AGRICULTURE MEETS TECHNOLOGY</b> 	In China, <b>Shanghai</b> , Tianjin, and Shenzhen; in the rest of the world, Hong Kong
<b>Regrettable early branding efforts</b>	Zocalo, which sounds like a nice Mexican restaurant 	MobileMe, which sounds like <b>phone-friendly</b> extras from <i>Despicable Me</i> 	GetDropbox.com	Drive superseded Google Docs	SkyDrive, which sounds like a monorail ride	N/A
<b>Intriguing new direction</b>	WorkMail, its encrypted email service	My Photo Stream, which is like Dropbox's Carousel but across all Apple devices	Badge, which lets users integrate the conversation around a document with the file	Supplementing its work-focused platform with the custom trip creator My Maps	Will likely introduce a music-storage and streaming service on OneDrive this year	Partnered with IBM to leverage its consulting services to find business clients
<b>Most recent embarrassing security breach</b>	June 2014, when hackers wormed into Amazon Web Services customer Code Spaces	August 2014, when "The Fappening" revealed nude photos of <b>Jennifer Lawrence</b> and Kate Upton 	June 2011, when accounts could be accessed without <b>passwords during a four-hour period</b>	July 2014, when embedded links in PDF and .docx files gave site admins access to documents that linked to their site	December 2010, when users could download other users' contact lists	None reported 
<b>Market cap/valuation</b>	\$173 billion	\$748 billion	\$10 billion	\$369 billion	\$357 billion	\$160 billion

\*The first rule of Amazon is: Never reveal exact user numbers.

Chart by Matt McCue



# Dropbox

and edit, directly from Office, the more than 35 billion Word, PowerPoint, and Excel files they've stored in Dropbox. "We heard loud and clear in customer feedback that people wanted access to Dropbox," says Kirk Koenigsbauer, VP of Microsoft Office. (Three months later, Microsoft opened up Office 365 to competing cloud drives.) Dropbox sure has come a long way since January 2013, when then-Microsoft CEO Steve Ballmer belittled the company as a "fine little startup."

**Houston has always been a fierce competitor,** never cowed by the technology establishment. In his YC application, he predicted that Microsoft was too conflicted to ever achieve the universality it desired. In Dropbox's first video demos, he taunts Google, which was rumored to be working on a cloud service, code named "Platypus," a product now known as Google Drive. Houston opens a photo of a platypus, marks it with a big X, and syncs it across devices.

Most famously, Houston rebuffed Steve Jobs in 2009, when Apple's CEO offered to buy Dropbox. Once rejected, Jobs, according to Houston, retorted that Dropbox was merely a "feature" that Apple would kill with its own storage service. The Dropbox team did "freak out" over the release of iCloud, says CTO Ferdowsi. But Houston assuaged everyone's fears. "He was really good at calming the team down," Ferdowsi says. "He was more like, 'This is a sign that we're onto something.'" iCloud pushed the cofounders to create even more features for consumers, including automatic camera uploads, an immediate hit. "We felt like, Hey, we want to go beyond just syncing files," says Ferdowsi.

Houston is still translating his competitive fire into products. When I visit in January, the team is putting the finishing touches on its new "Open" button, a way for users to read and edit files without even downloading them. They're also working on the Dropbox badge, a collaboration system to save teams from "Frankenfiles," shared documents that contain multiple, disjointed edits. It's a notoriously complicated problem, one that has frustrated many a user of Google Drive. "All of this seems like a little thing," Houston says, "but every day you have afternoons being ruined because you open an Excel spreadsheet to finish it up, and someone 30 feet away from you has been editing the same thing. It's horrible." He says this with the emotional conviction of someone whose heart has been broken. "Our dream is that, with Dropbox, this should be the first day in a long time that you go home early."

Houston is the driving force of Dropbox, but he has also shown the maturity to surround himself with an impressive network of mentors and advisers, most of whom have been counted out

when faced with competition from established rivals. That list includes close friend and Facebook CEO Mark Zuckerberg, who is known to pop into Dropbox HQ from time to time; Salesforce CEO Marc Benioff, a pioneer of cloud-based services; Dennis Woodside, a former Google executive who served as CEO of Motorola during the search company's brief ownership, and who joined Dropbox as COO in April 2014; and Travis Kalanick, the CEO of Uber. Kalanick and Houston meet regularly for dinner and drinks to share notes on managing through an intensely competitive landscape. "In an engineering- and product-oriented organization, there are complexities when you get to several hundred or several thousand employees," Kalanick explains. "How do you create a place that stays innovative while it scales?"

The question gnaws at Houston: How can he ensure that every new employee is as passionate about ridding the world of digital inconveniences as he is? "The big challenge will be growing the company in a way that allows people coming in to quickly get up to speed and contribute," says Woodside. It's particularly hard for someone as obsessive as Houston. Described as an extremely hands-on "engineer's engineer," Houston participates every year in the company's Hack Week, in which developers work on individual projects that often get fast-tracked to product status. He's positioned his desk right next to the other engineers in Dropbox's open office. The day I visit, multiple half-full water jugs have been abandoned behind three vertically positioned monitors while an open can of sour-cream-and-onion Pringles sits in front. "He's gotten a lot better at it," VP of engineering Aditya Agarwal tells me. "Being able to frame problems and then relying on other people to come back with solutions."

During a product review I observe, Houston cuts through a boilerplate recital of statistics about Dropbox badge's early trials with questions that repeatedly steer the discussion back to the user. "Are there people who dislike it?" "Have users come up with any new requests?" "What other feedback do we have?" In the middle of a brainstorming session about new features, he tries to rev things up by rattling off suggestions from customers he met at the Consumer Electronics Show. He can't relax until a loud, almost indecipherable clamor of ideas erupts. "You should just be able to just like, ping the file, or 'Yo' it," he jokes, sending the room into uproarious laughter with his nod to the briefly hot notification app. "I want to leave a lot of blanks for other people to fill in, both because it's less work for me," he later tells me with a smile, "and because it's something for people to debate."

Houston is also working hard to ensure that Dropbox feels like a collection of peers, at all levels of the company. It's a philosophy that appeals to many Dropbox employees. On a chilly night in San Francisco's Financial District, Ilya Fushman, head of business and mobile products, and Agarwal join Houston and me for dinner at the Battery, an exclusive restaurant and private club. Despite

the posh surroundings, Fushman and Agarwal wax poetic about the egalitarian culture Houston and Ferdowsi have created. "It's really hard to pull off creating an environment of peers," says Agarwal, a former engineering director at Facebook who oversaw the development of its News Feed. "We hold ourselves accountable to expectations, and at a bunch of companies, that ends up being centralized. Drew's my boss, but I prefer to think of him as a peer and friend."

One way Dropbox encourages a distributed sense of responsibility is by giving new hires hefty tasks. This is particularly true of the small engineering teams brought in by acquiring startups. Houston, Agarwal, and Fushman, who winkingly refer to themselves as "Deal Team 6," have overseen more than 20 such acquisitions in the past three years, and Houston notes that nearly all of these acquirers still work at the company. "They end up with a much bigger playground than they had before," Houston says. For example, Gentry Underwood, cofounder of the popular Mailbox email app that Dropbox acquired in 2013, is now head of design. It's a strategy that comes directly out of the Mark Zuckerberg playbook.

Dropbox badge, which is expected to launch this month, is a product of exactly this mind-set. The idea was originally suggested by Max Belanger, an intern. "I'm like, 'Dude, it's not possible. No, don't do that,'" Houston says, laughing. Belanger stuck with his obsession and proved its feasibility anyway. He's now a full-time engineer.

**Maintaining a peer-oriented, obsessively** focused company is about to become more challenging than ever. The cloud is now the hottest, most competitive sector of technology innovation. Amazon has rebranded its cloud service, giving it the more consumer-friendly label "WorkDocs" and adding email management, the ability to store and share files up to 5 TB, and mobile apps for both Android and iOS. In February, Apple launched a slicker, cloud-focused replacement for iPhoto on OS X. And perhaps most menacing of all, Microsoft's mobile and cloud-based productivity mandate is starting to pay off. The company is set to garner about \$5.5 billion in annual sales of its cloud-based services. In just two months, Nadella spent \$300 million to acquire Acompli, an app that anchors Microsoft's rejuvenated Outlook app, and Sunrise, a popular calendar app. Even Houston's buddy Zuck may prove to be a rival—his company is testing Facebook for Work.

With the increased competition comes a new kind of glare. The antisurveillance crowd inveighs against popular cloud-based services; most recently, Edward Snowden warned the public to "get rid of" services like Dropbox and Google Drive, claiming that they didn't offer enough privacy features for users or advocate on their behalf. (Dropbox's addition of former Secretary of State Condoleezza Rice to its board last year did little to quell fears.) The attention ramps up the pressure to get every detail right. "Dropbox just can't ever screw up," Ferdowsi admits. "If we ship out a version of Dropbox that

# DRIVE YOUR BUSINESS FORWARD

For three years, *Fast Company* and Mercedes-Benz Vans have partnered to award an innovative and growing business with a Sprinter van and \$10,000 to customize it to propel their business to new heights. **This year, we are welcoming a new member of the Mercedes-Benz Vans fleet, the all-new 2016 Metris.** Learn about our past winners, and get tips and inspiration from them below, and you could win a Metris to help drive your business forward.



## 2014 WINNER | BUCHI KOMBUCHA

Buchi is at the forefront of the rapidly-growing Kombucha industry. In place of a traditional sales team, Buchi travels around the country, creating community connections that have lead to explosive growth.

“We were extremely precise in detailing how we’d customize the Sprinter van to our business needs, showcasing the upfit features through a graphic rendering.”



## 2013 WINNER | 6D HELMETS

“If you don’t win, try again! You don’t have to spend months planning, we shot our second entry the night before the deadline!”

Both former professional motocross racers, co founders Bob Weber and Robert Reisinger developed a revolutionary Omni-Directional Suspension™ technology that dramatically improves safety. 6D travels to motocross events around the country using their Sprinter as a mobile store.



## 2012 WINNER | DBC SHOWROOM

DBC Showroom brings the work of contemporary fashion designers directly to boutique buyers. Every season, DBC drives roughly 20,000 miles in a showroom presenting the latest fashion lines to boutique owners and buyers.

“We focused on not only telling the story of our brand, but also clearly explained how we’d double our revenue in the next year by adding a Sprinter to our business.”

# WIN THE ALL-NEW 2016 METRIS

## READY TO DRIVE YOUR BUSINESS FORWARD?

Submit a 60 to 90-second video telling us about your company and how you would customize a Metris to drive your business forward. The winner will receive a new 2016 Metris, \$10,000 toward vehicle customization, and exposure in *Fast Company* for a chance to take their company to the next level.

To enter and see official rules, visit:  
**[fastcompany.com/metris](http://fastcompany.com/metris)**

AN INITIATIVE BY

**FASTCOMPANY**



**Mercedes-Benz**  
Vans. Born to run.



European model shown. Actual vehicle may differ.



deletes data erroneously, at scale, it's kind of the end of the company." Dropbox's offices feature a blue neon sign that glows, IT JUST WORKS. It's both a goal and a constant reminder to be ever vigilant.

Houston acknowledges a certain level of pressure. Two years ago, he started taking what he calls "think days"—secluded, long weekends in a hotel in nearby Palo Alto or as far away as Maui—to escape and meditate on Dropbox's position. He often returns with long manifestos.

A student of tech history, Houston puts the dilemma he's obsessing about in context. "A while ago, people might have put an MP3 in their Dropbox, but why would you do that now, with Spotify and Pandora?" He cites Craigslist as an example of what could happen to his company if it falls behind. "You used to see Craigslist used for everything. And then Match.com takes away some, StubHub, and then Airbnb comes along. It gets unbundled. And we're like, 'Maybe this is gonna happen to us.' So we should do that to ourselves instead of letting someone else do that to us."

This is Houston's biggest concern—not Amazon, Apple, Google, Microsoft, or Tencent. He's worried about the next twentysomething who wedges her way into his user base and peels off Dropbox's features before he can build more of them. His paranoia is not without cause: One of his former engineers, fellow MIT alum Michael Grinich, is already gunning for Dropbox's Mailbox with his new email startup, Nilas.

This gets to the heart of those discussions Houston regularly engages in with Kalanick: "How do you make sure," explains the Uber CEO, "that you don't become the big company that becomes rigid, brittle, and disrupted by the new guy?" Like the many purchases made by his friend Zuckerberg, Houston's acquisition spree may be as much about neutralizing potential threats as it is adding to Dropbox's talent and tools. While Microsoft pursued its splashy deals, "Deal Team 6" quietly added crews that build tools to let users create collaborative documents and assign to-do lists; that let designers share and work on CAD files; and that even have created a cloud-based word processor that Dropbox's customers could use instead of Microsoft Word. Each feature could have chipped away at Dropbox's utility. Now they will be integrated into Dropbox and rolled out later this year.

Houston tells me that one of the first things he shows to new hires is a slide show that includes the logos of Netscape, Myspace, RIM, Lotus, and Friendster. It almost seems absurd to me that a startup not even a decade old is already worried about being upended and becoming a cautionary tale. "What do these companies have in common?" Houston asks his new acolytes. "No one wears their T-shirts anymore, except maybe as a Halloween costume." There's a stack of free Dropbox T-shirts when you enter the offices. Houston is hell-bent on making sure that they don't become ironic garb for some Stanford business-school student with his head in the cloud. ☛

jmccorvey@fastcompany.com

## Gap

(Continued from page 95)

from a fractured creative team—from design to merchandising to marketing. "The store felt one way, the service felt another way, the product felt another way, and the marketing was another way," says Severson. "It was cognitive dissonance." Peck fired Gap's high-profile head of design, Patrick Robinson, and camped out in Gap's New York Design Center. One weekend, he hotboxed all the top leaders in a room until they came to a consensus on a cohesive look. The gambit worked: The clothing created during Peck's two years as head of the Gap brand led to eight straight positive quarters (including the Colored Denim Period), its best run in years—all without a head of design.

Peck's near-term priority as CEO is, once again, to fix the product. On a brisk January day, he stands at the mouth of Gap's flagship store in Midtown Manhattan. "I'm glad to see yellow, because color has been lacking in the assortment. But it's not the most democratic color," he observes. He's digesting the latest merchandise with Jeff Kirwan, who has spent the past four years building Gap Inc.'s China presence and whom Peck just put in charge of the Gap brand. Only one week into his new job, Kirwan can see the challenges ahead. "We've stuck with some old historical winners that have started to fall off the cliff. We've held on to them too long," says Kirwan, pointing to a pile of skinny jeans that don't have enough stretch in them. Adds Peck, "The trend in denim right now is the destructive and destroyed denim, and our washes are clean. We missed a little bit of the trend." Then Peck wanders over to a table of cashmere sweaters and picks up a heather grey one. "It's a really nice cashmere, but it's a really tight crew neck. That's not a feminine neckline at all," he says, disappointed. "My guess is I could buy this in a large and wear it."

Androgynous cuts, bland colors, and missing trends completely have been just a few of the issues plaguing Gap's women's collection since Peck stepped away from day-to-day management of the brand two years ago. After he left, the company hired a new creative director, Rebekka Bay, a Danish trend forecaster and design consultant who cut her reputation launching H&M's more modern, upscale Cos brand. Bay tried to bring a fashion-forward basics sensibility back to the brand, but items like a T-shirt dress ended up too minimalist and boxy for the Gap customer. One of her more daring touches this past season was reviving Gap's "Crazy Stripe" sweater from the mid-2000s, which boasts a rainbow's worth of colors. While not referring specifically to that sweater, Peck commented to his staff: "It's a sign of the times, unfortunately, that when there was an Ugly Christmas Sweater Party at the company, some of the sweaters there were from our current assortment. That's not the way it should be." By late January, Bay was out.

At the Manhattan flagship store, Peck directs my gaze away from the bustling "Sale" section that appears to be a magnetic force for customers. "We're not going to allow you to go over there," he tells me, only half teasing. Training customers to expect chronic discounts has become a destructive cycle at Gap. He knows that he has to "pull out the promo needle," as the industry puts it. To do so, Gap needs to ramp up its Retail 2.0 capability: Right now, he says, it takes the brand at least 10 months to get its new product ideas into stores. That's about three times as long as competitors like H&M and Zara, which have built their success by hopping onto the fashion world's hottest trends and riding them. "We're an industry that guesses a lot," says Peck, who is working with vendors across the entire supply chain to cut production time down to around 30 weeks. "The faster you are in conceiving product and putting it on the shelf, the less risk there is."

### If Peck's time as the head of the Gap brand

gave him a road map for attacking the company's product woes, it was his next job—the one he had just before he became CEO—that provided him with the skills for imagining Retail 3.0. For two years, Peck headed the awkwardly named "GID" division (for "growth, innovation, and digital"). This was the group in charge of the company's smaller, high-growth brands, e-commerce, and so-called omnichannel offerings—industry jargon for bridging digital and physical retail. He introduced retail services such as "Reserve in Store," "Find in Store," and "Ship From Store," and digitized its entire product inventory. Peck didn't have technical engineering skills, but he pushed the group to infuse a sense of humanity into the company's e-commerce products, and he was never afraid to question things. "If you looked at the way we presented ourselves on smartphones two years ago, it was highly utilitarian. Big buttons, gray, prominent text," says Sol Goldfarb, the company's executive VP of digital and customer experience. "Art kept saying, 'It's not good enough, it's not good enough, you're not there.' Art taught us that choosing convenient and transactional versus emotional and engaging is a false dichotomy."

For years, Peck has focused on dissolving the wall between physical and digital. During the two years he ran the Gap brand, Peck shrank its U.S. footprint by shuttering more than 225 locations "in malls where real estate wasn't productive," he says. Now, as CEO, Peck hints that the number and size of the company's 3,680 stores will inevitably shrink. He plans to make mobile the central point of all customer interactions—though he's not exactly sure how. "I would like to be able to articulate a nice linear path as to what our stores are going to evolve to," he says. "But I think it's going to be a lot messier than that." He's testing showroom formats, mobile registers, RFID-tagged clothing, interactive digital walls, and even something that might resemble a vending machine. Peck has developers in Silicon Valley camped out at Gap, Banana Republic, and

Old Navy stores, incorporating customer and salesperson feedback into code in real time. “I think that kind of rapid prototyping—typical in a lot of other industries, not so typical in ours—will be critical for figuring out this collision of physical and digital,” he says.

Peck’s enthusiasm in this area is one of the key reasons he was tapped to be CEO. “As the board thought about the kinds of skills the new leader should have, digital operations skills were pretty far up the list,” says Bob Fisher. “Art was the unanimous choice.” Michael Silverstein, who ran BCG’s retail practice for 25 years, was one of the people Peck turned to in weighing the decision to accept. Silverstein advised him that it was a rare opportunity to reinvent retail at a moment filled with uncertainty—something Peck was wired for.

“Art’s running the company as if it’s a smaller company,” says Jyothi Rao, Intermix’s new president, whom Peck recruited from Gilt Groupe, where she ran its women’s and kids’ divisions. Rao recalls negotiating a critical new hire when the process hit a bump. “We could have gone through two or three layers in our HR organization,” says Rao. “But I just texted Art and said, ‘Are you cool with this?’ And he got back to me in less than one minute.” Nancy Green, a 21-year Gap Inc. vet who’s now running its fast-growing Athleta business, says that Peck understands how to cultivate entrepreneurs within a large organization: “What Art always says is, ‘What do you need from me?’ And I’ll say to him, ‘I need you to remove that wall for me, please.’ He’s like, ‘Okay, let’s figure it out.’”

For all the criticism Gap has faced, its digital competence has never been questioned. “They’ve always been ahead of the curve,” says Sucharita Mulpuru, an e-commerce analyst at Forrester. The retailer builds almost all of its technology in-house, has been aggressive with services that straddle the physical and digital, and boasts one of the most elegant digital interfaces for its \$2.26 billion e-commerce business, where most of the brand’s sales growth is coming from these days. “Gap is one of those brands that’s at an inflection point,” says Mulpuru. “It will either go the way of JCPenney, with its glory days behind it, or do what J.Crew has done: have a massive retrenching and turn the business around.”

**As Peck works to remedy lapses in the company’s Retail 2.0 proficiency and build a digital framework for Retail 3.0, he’s simultaneously creating a bridge that will allow the company to move smoothly from one to the other. That bridge, odd as it may seem, is fashion. Peck undoubtedly watched J.Crew elevate its brand prestige by debuting collections on the runway, and recently took a page from that playbook. In February, for the first time, Banana Republic revealed its latest line at New York’s Fashion Week, under new design chief Marissa Webb.**

Webb is arguably now Gap Inc.’s most fashionable employee. On the snowy winter day when I visited, she may have been the only woman in

New York showing toe cleavage. Webb, J.Crew’s former head of women’s design, is walking Peck through a preview of her fall 2015 collection, bare skin exposed between her three-inch heels and cuffed navy wool trousers. An independent thinker, she represents a new type of dynamic Peck hopes to have with creatives. “Every time he comes to town he wants to meet at my [personal] studio,” says Webb. After leaving J.Crew in 2011, she launched an eponymous fashion line and had been running it for three years when Gap Inc. came calling last spring. Banana Republic was a staid brand trying to shake its work-wear reputation; then—CEO Murphy sent Peck in to meet with her. “I was the closer,” Peck says with a grin.

Fashion has the potential to bring some necessary buzz to the company (remember when the First Family wore J.Crew to the inauguration?), but more important, it offers Gap Inc. two things it desperately needs in order for Peck’s overall vision to succeed: trend insights and credibility. Intermix, which sells high-priced wares from designers like Valentino and Derek Lam, will give Gap Inc. immediate access to fashion information and serve as a trend breeding ground for the company’s other brands. So will Peck’s relationship with Emily Current and Meritt Elliott, the L.A. duo behind Current/Elliott. After they designed the Boyfriend Jean—a trend that rocked women’s wear in 2008—Peck reached out to them for lunch, and they began a relationship that led to consulting work for the Gap brand. Last year, Peck became a personal investor in their newly hatched brand, the Great. (Peck says that his stake in the high-end brand isn’t considered competitive with Gap Inc.) “He allows any creative person to feel free,” says Current. The pair were recently named style ambassadors for Old Navy.

Then, of course, there’s Webb. In hiring her, Gap made an unprecedented financial investment in her namesake brand, knowing that it could provide valuable early intelligence—and perspective. “It’s the two extremes of the industry,” says Peck. “Ours is a big machine that sits in the corner every day and says, ‘Feed me.’ And [hers is] this relatively small business where the pure essence of it is product, nothing else—no politics, no pro-

cess. I think it’s a healthy [way] to always remind us what job number one is.” Webb, who now juggles both Banana and her own line simultaneously, says she’s found a like-minded partner in Peck. “It’s an honest relationship,” she says. “He calls it as he sees it, and I respect that. He’ll send me a text and I’ll send him a text back. It’s very fast, very scrappy.”

Now, once Gap develops its fast-fashion machinery, it will know precisely how to deploy it.

**None of this, of course, guarantees that Gap will succeed.** As Peck takes the helm, Old Navy—now led by former executives from H&M and Nike—is on the upswing. Athleta, in the booming “athleisure” space, has the company’s fastest growth prospects, along with Gap Inc.’s Asian expansion. Peck killed e-commerce experiment Piperlime and removed Bay. The pruning and buffing under way are always good practices, and Gap’s faster-fashion effort will be a smart investment no matter what—retail certainly isn’t slowing down. Plus, there could be more acquisitions ahead. (Some think the company should buy a retailer like Uniqlo, which still has yet to fully conquer North America, but Peck is more interested in smaller startup businesses that have a lot of growth ahead of them. “I tend to get much more excited about those,” he says.) Still, no one can answer that ultimate question of what a Retail 3.0 store will look like. No one knows.

For all the ground it lost with fast fashion, Gap might be in the best position to find out. It’s already ahead of competitors like H&M and Zara when it comes to a digital and mobile presence. If, by generating desirable, on-trend clothing and lots of good buzz, Gap can establish an emotional connection with consumers, perhaps it can then lead them anywhere, be it to a mall, an app, or a vending machine. In December, two months before officially becoming Gap’s CEO, Peck held his final meeting with his GID team. He riffed about “the wonderfully messy, ugly, disruptive time” that Gap’s business was entering, “the beginning of a shakeout” rippling across the apparel industry, and his hope that his legacy as CEO will be that “we grabbed it, wrestled it, and we are killing it.”

There’s a Gap at New Jersey’s Livingston Mall, wedged between the surrendered Wet Seal and liquidating Aeropostale kids’ store. On an early January day, an END OF SEASON SALE sign hangs in the window, next to mannequins dressed for the gym. Seven of the 10 shoppers inside rummage through the discounted merchandise. There’s another Gap one town over, at the Short Hills mall, where there’s also a Banana Republic. Webb’s fall 2015 collection will arrive in August. Many customers will see it first—and shop from it—on their phones. “The role of the store is evolving,” says Peck. “What it’s going to become is something that we and the customers will figure out, together, over time.” Luckily, when it comes to fashion, customers are always looking to try on something new. 📱

dsacks@fastcompany.com

**“WE’RE AN INDUSTRY THAT GUESSES A LOT,” SAYS PECK. “THE FASTER YOU ARE IN CONCEIVING PRODUCT AND PUTTING IT ON THE SHELF, THE LESS RISK THERE IS.”**



# Get the Recognition You Deserve!

Be Honored as  
One of America's  
Fastest-Growing  
Companies

➔ Apply today at **Inc5000apply.com**

The Inc. 5000 list of the fastest-growing private companies honors all sizes of success. Inclusion on the Inc. 5000 list is a highly coveted mark of entrepreneurial success. It elevates your company above its competitors and is proof of the talent, drive, and hard work you and your team bring to doing business.



# WhiteWalls® Magnetic Whiteboard Steel Wall Panels

**Mike (Operations Manager)**  
Uses his WhiteWalls to find bottle necks.

**Stacy (Architect)**  
Uses her WhiteWalls to see how it all comes together.

**Ruben (Artist)**  
Uses his WhiteWalls to find inspiration.

**WhiteWalls.com**

**Call- 800 624 4154**

## >>CLASSIFIED

### BUSINESS FINANCING

\$50,000 - \$250,000 IN UNSECURED credit lines. \$50K guaranteed with 720+ FICO, stated income. Perfect for startups, 60-second pre-approval. 1-866-988-SEED (7333). [www.BusinessLoan.org](http://www.BusinessLoan.org)

CASH FOR INVOICES! Accounts Receivable Financing to \$2,000,000. Direct lender with offices nationwide. Call AeroFund Financial. Approvals by phone. [www.aerofund.com](http://www.aerofund.com) 800-747-4234.

### BUSINESS OPPORTUNITIES

WANT TO PURCHASE minerals and other oil/gas interests. Send details to: P.O. Box 13557, Denver, CO 80201.

DYNAMITE OPPORTUNITY. Work from home. Make \$100 to \$200 an hour, credit related, must be honest and have good credit. No selling no investment, no scam, takes 2 minutes to qualify. 5-minute training, start today. 630-677-1196.

GET PAID \$97,977 MONTHLY by Three Billion Dollar Corporations! Discover how to get paid now! GAI-FC1, PO Box 12311, Silver Spring, MD 20908.

MAKE \$200 TO \$500 AN HOUR. Making 5-minute calls to your credit card companies, takes 2 minutes to qualify. 5-minute training. [www.cash4yourgoodcredit.com](http://www.cash4yourgoodcredit.com) 708-717-2398.

### \$750 WEEKLY PART TIME

Processing Simple Worksheets. Start Immediately. [www.MakeMoneyBigMoney.com](http://www.MakeMoneyBigMoney.com)

**CLASSIFIEDS 727-507-7505**

### BUSINESSES FOR SALE

ESTABLISHED PROFITABLE WEBSITES Online businesses \$100K-\$10M. Internet Business Broker Specialists. For more details, visit us online at [www.websiteproperties.com](http://www.websiteproperties.com)

PROFITABLE BUSINESSES FOR SALE by Owner. All types, sizes, locations. [www.bizsale.com](http://www.bizsale.com) 1-800-617-4204.

### BUSINESS SERVICES

EFFORTLESSLY MONITOR YOUR online reputation and reviews: [www.YourProfitWeb.com](http://www.YourProfitWeb.com) 1-888-846-7848.

INCORPORATE YOUR BUSINESS! Complete formations all 50 states with 5 Essentials: Formation, Compliance, Taxes, Funding, Profits. Best Value. Since 1997. 1-800-599-7999. [www.nvinc.com](http://www.nvinc.com)

**Incorporate**  
for as little as **\$99**

Visit [www.incorporate.com](http://www.incorporate.com)  
or call 866-453-3314



Save \$25 by  
scanning this code

### CAPITAL AVAILABLE

**UNLIMITED CAPITAL AVAILABLE**  
US \$250K minimum, no maximum. Brokers invited with fees protected. **410-535-3400**. [www.intrepidexecutivegroup.com](http://www.intrepidexecutivegroup.com)

### EDUCATION/INSTRUCTION

OXFORD AMERICAN UNIVERSITY - JD, MBA, DBA, PhD Degrees. Accelerated/accelerated. [www.fpstudies.org](http://www.fpstudies.org) 703-232-1647.

### FRANCHISES

**FRANCHISE YOUR BUSINESS**  
30 years experience. National Franchise Associates, Inc. **770-945-0660**.

**CLASSIFIED INFORMATION 727-507-7505**

### FRANCHISES

IS YOUR FRANCHISE SYSTEM NEXT? Franchise your business inexpensively. 407-536-6109. [NextFranchiseSystems.com](http://NextFranchiseSystems.com)

### PROFESSIONAL SERVICES

**BOOKKEEPING FOR AS LITTLE AS \$99**  
Outsource your monthly QuickBooks or Xero Accounting to BooXkeeping Corp. 100% USA based. Certified & insured. Call: **1-888-509-0030** or Visit: [www.BooXkeeping.com](http://www.BooXkeeping.com)

### TRAVEL

"EXPEDIA QUOTED \$3,365.46" during peak travel season, I paid \$799. [www.Cheap5Star-Travel.com](http://www.Cheap5Star-Travel.com)

### CLASSIFIED INFORMATION

Reach Fast Company's successful, affluent, educated and influential business leaders through our classified section! These top impact players in business rely on and respond to Fast Company's first-hand insight and actionable ideas to stay on top of their game.

The classified rates are \$12.90 per word, with a twelve-word minimum or classified display rates are \$895 per column inch. All classified advertising must be prepaid by either check or credit card. Make checks payable to RPI Classifieds. Visa, MasterCard and American Express only. The next available issues are the June issue which closes Wednesday, April 3rd and the July/August issue which closes Friday, May 1st.

For additional information visit our website at [www.rpiclassifieds.com](http://www.rpiclassifieds.com)

**Fast Company, Classified Dept., PO Box 570, Clearwater, FL 33757**  
**727-507-7505 • FAX 727-507-7506 • info@rpiclassifieds.com**





## A MODEST PROPOSAL FOR SAVING AMERICA'S CITIES

I COULD CLONE MYSELF—OR WE COULD LEARN HOW TO DO A BETTER JOB OF SHARING.

**NEW YORK CITY** dwellers love to proclaim that we live in “the greatest city in the world!” But is that really true? There’s no way the world’s “greatest” city would have a median home purchase price of \$1.7 million and yet still smell like urine on so many street corners. That said, NYC is great at a lot of things—and could become even greater if it could learn from other cities. Given travel, data sharing, and connectivity, there’s no excuse for all of our cities not to pool their knowledge and become better than they are.

Here are some examples of regional excellence, provided in part by a super-scientific survey of my Facebook community. And by “scientific” I mean I adhered to the principles of physics when I posted my query:

Austin integrates bus and bicycle transit better than most. Gaithersburg, Maryland, has a killer book festival. Chicago’s waterfront, parks, and activities are top-notch. Somerville, Massachusetts, has a Fluff Festival (look it up!). Atlanta encourages civic engagement through Neighborhood Planning Units. San Francisco has incredible recycling and composting. The public transportation in pretty much any Japanese city runs carbon-efficient circles around U.S. equivalents. And Curitiba, Brazil, uses parks rather than concrete canals to combat flooding.

There’s really no excuse for any city not to improve. They’ve got the data, processes, and ability to share. Los Angeles’s success at smog reduction could be implemented in Beijing. Lynn, Massachusetts’s skill at repurposing old buildings could help save what’s left of Kansas City’s



NEXT TIME THE 49ERS THROTTLE THE EAGLES, PHILADELPHIA HAS TO IMPLEMENT SAN FRANCISCO'S RECYCLING AND WASTE COMPOSTING SYSTEM.

structures. Some of this communication does happen at mayoral forums, summits, and conferences, but these are tepid accelerators for this information age. Here are some creative ways cities can learn from each other.

- **Slack Teams.** Slack is all the rage as a collaboration platform for teams. I’m not just saying that because they sponsor my company’s Comedy Hack Day series (but, disclosure and all that, they do). Let’s get Slack Teams for DOT officials in various cities. They could share ideas, answer questions, and post animated GIFs in their free time.

- **Prizes!** I still remember the “green challenges” between dormitories at college, with the prize going to whichever used the least amount of energy in a semester. Cities with the best community-police relationship or availability of fresh produce could win trophies, cash, prestige, and pizza parties.

- **Rotating bureaucrats.** Sometimes it comes down to really good people. There’s already a competitive market for exceptional public officials. Heads of police departments get poached by other

cities, on the assumption that their expertise is rare and portable. Can’t we share these experts more regularly? If someone has really figured out how to encourage development without having five coffee shops at every intersection, the rest of us should benefit. Stop being selfish!

- **Betting.** Every year, mayors place meaningless wagers on sporting events. Let’s up the stakes. For every intercity sports battle, the losing city must loan out the departments, processes, data sets, and designs for whatever it does best. Next time the 49ers throttle the Eagles, Philadelphia has to implement San Francisco’s recycling and waste composting system for a year, and applaud the city of San Francisco for the improvements.

With the right mix of data, technology, competition, and sensible betting, we can make every city more livable. ☺

*Baratunde Thurston is the author of the New York Times best seller How to Be Black and CEO and cofounder of Cultivated Wit, a creative agency that combines the powers of humor, design, and technology.*



# More space. More service. More than happy.

The new  
Premium  
Economy Class:  
more than just  
more legroom



The new Premium Economy Class is designed for more you-room: wider seats, two armrests, an amenities kit and bottle of water. We've made more room for your luggage, too — by doubling your bag allowance. So take a sip of your complimentary welcome drink, tap for a movie on the 12" touchscreen and start enjoying your trip even more.



# Lufthansa

The Premium Economy Class will be available on select long-haul flights as of now and will be phased in gradually across the entire long-haul fleet by the end of 2015.



Penn & Teller Pioneers in Magic



# DEFY CONVENTION AND YOU CAN DEFY BELIEF.

## *THE NEWLY REFINED 2016 MAZDA CX-5*

Like Penn & Teller, the Mazda CX-5 is anything but conventional. With SKYACTIV® TECHNOLOGY, it achieves up to an EPA-estimated 35 highway MPG<sup>1</sup>, without sacrificing performance. All with the utility and great design you've come to expect from a Mazda. This is the Mazda CX-5, and it all starts at \$21,795<sup>2</sup>.

MazdaUSA.com

*zoom-zoom*

<sup>1</sup>Based on EPA estimates for 2016 Mazda CX-5 Sport FWD with 2.0L engine and manual transmission 26 city/35 highway MPG. Mazda CX-5 Grand Touring FWD model shown with 2.5L engine and automatic transmission, EPA-estimated 26 city/33 highway MPG. Actual results will vary. <sup>2</sup>Starting at \$21,795 MSRP plus \$880 destination (Alaska \$925) for 2016 Mazda CX-5 Sport FWD with manual transmission. 2016 Mazda CX-5 Grand Touring FWD model with Technology Package shown, \$30,025 MSRP plus \$880 destination (Alaska \$925). MSRP excludes taxes, title and license fees. Actual dealer price will vary. See dealer for complete details.

